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Literature Search and Analysis  
for  
Cultural Resources in Areas 1 Through 5  
of the  
Rock River, Illinois

by  
Floyd Mansberger  
Roger Coleman

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Midwestern Archeological Research Center  
Illinois State University  
Normal, Illinois 61761  
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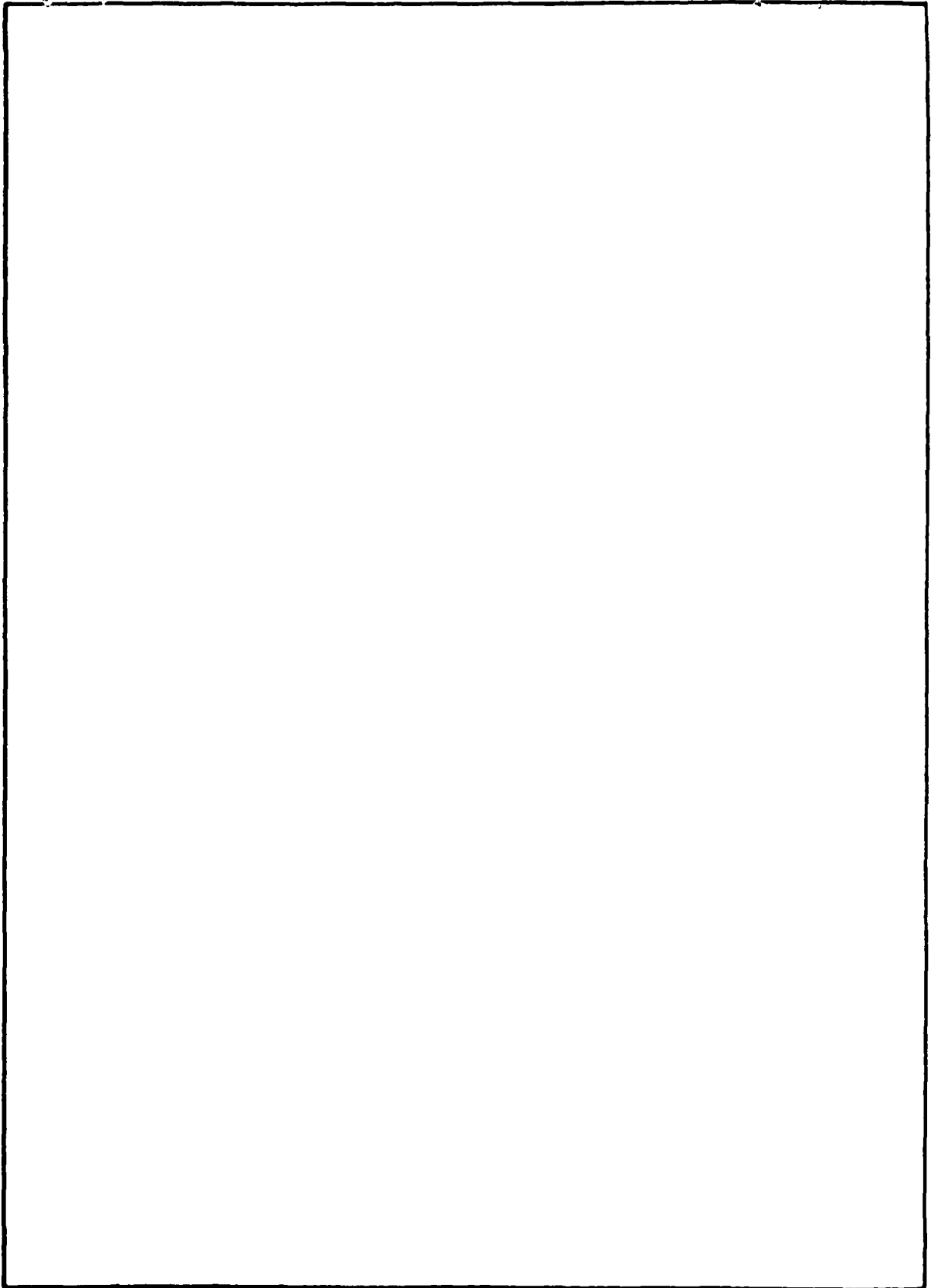
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LITERATURE SEARCH AND ANALYSIS  
FOR  
CULTURAL RESOURCES IN AREAS 1 THROUGH 5  
OF THE  
ROCK RIVER, ILLINOIS

Conducted Under Purchase Order #DACW25-80-M-1638  
between

U.S. Army Corps of Engineers  
Rock Island District  
and

Illinois State University  
Normal, Illinois 61761  
Midwestern Archeological Research Center  
Edward B. Jelks  
Program Director

Report Prepared Under the Supervision of  
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by

Floyd R. Mansberger  
Roger Coleman

Edited by  
Holley R. Lange



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## ABSTRACT

A literature search of published and archival sources relevant to the Lower Rock River Valley identified a total of 611 locations of cultural interest; 121 of these were previously recorded, or collector identified prehistoric sites, and 490 of them were historic sites located through documentary research. By contact, no field checks were made of any of these sites, and such a step will be necessary before the results of this study can be utilized for specific management purposes.

## ACKNOWLEDGEMENTS

The authors wish to acknowledge the assistance of the collectors, archivists, librarians, and historical society workers who assisted the research; they are cited by name at appropriate points in the text. We would especially like to thank Mr. Stan Riggle of The Iowa State Historic Preservation Office for his insights and suggestions for revisions in the prehistoric section of the report. Joseph Phillippe, Assistant Director of the Prehistoric Division, Midwestern Archeological Research Center, was responsible for revision of portions of the prehistoric section of this report.

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## I. INTRODUCTION

The following report summarizes the literature search, review, and analysis of known cultural resources for Rock River Areas 1 through 5, carried out under Purchase Order #DACW25-80-M-1638, Rock Island District, U.S. Army Corps of Engineers. The purpose of this report is to aid the Rock Island District with proper management of known cultural resources within the project area. The objectives of the study were twofold: first, to find site-specific historic and prehistoric locational data for the project area, and second, "to accumulate general historical information regarding demography, settlement patterns, transportation, economic, and social systems that could be used in constructing models to describe and explain the changes that occurred in the area through time" (Ekberg, Smith, Walters, and Lange 1980).

The project objectives outlined by the research proposal are: (1) identification, review, and evaluation of major documentary and oral sources of prehistoric and historic information about the region, useful for both present and future research in the area; (2) compilation of site locational data on known sites from both the prehistoric

and historic periods; (3) development of a chronological framework for the project area which will incorporate considerations of environment, settlement, and economic patterns; and (4) generation of hypothetical cultural/geographical/ecological models which can be tested and refined during subsequent research.

This project was undertaken by the Archaeological Contract Program at Illinois State University. Field work was begun July 21st and continued until the 8th of August, 1980, by Floyd Mansberger and Roger Coleman. This field work consisted of visiting the Quad City region to locate and review documentary and archival material held by local institutions. At this time collector interviews were arranged and held to determine prehistoric site locational information. Other institutions located across the state were also visited to determine the number and content of documents relevant to the project area.

Prehistoric research consisted of artifact collector interviews, a review of the literature, and investigation of previously compiled site files, all focused on several research questions pertinent to the lower Rock River Valley and outlined in our research proposal. Historic research followed a research design (Lange and Smith 1980) developed by Illinois State University on similar projects conducted for the Illinois Department of Transportation (Mansberger

and Walters n.d.) and the U.S. Army Corps of Engineers, St. Louis District (Ekberg, Smith, Walters, and Lange 1980). Emphasis was on development of transportation and economic networks relevant to ethnic and settlement distribution. No previous schematic investigations of areas adjacent to the Rock River had been carried out for the historic period. Historic site locational data were generated from a sequential suite of 19th-century maps, plats, and atlases of Henry, Rock Island, and Whiteside Counties.

#### Geographical Setting

The project area includes areas 1 through 5 of the Rock River basin, approximately from the village of Carbon Cliff in Rock Island County to the village of Lyndon in Whiteside County (Fig. 1). The designations "1-5" refer to U.S. Army Corps of Engineers designated levee units for flood protection control. The study area included the zone between the two 600' contour intervals and totaled about 120 square miles of river bottom.

#### Geological History

The project area is in the Green River Lowland physiographic province (Thornburn 1963). The present landscape results from a complex Pleistocene history, characterized largely by the presence of the pre-Holocene channel of the Mississippi River. The Pleistocene Mississippi followed



Fig. 1  
Rock River 1-5 Project Location

a course down the Meredosia channel and then turned eastward to the present-day Illinois River channel (Smith 1925:3). During the Woodfordian substage, the Green River lobe of the Shelbyville glacier blocked the Meredosia channel near Hillsdale, thus creating Glacial Lake Cordova (Schaffer 1954). The waters of Lake Cordova found a new outlet near present-day Cordova, creating the present Mississippi River channel (Illinois State Geological Survey 1964:3-5).

#### Physiography

Major physiographic qualities of the Green River Lowland display a direct relationship to the Quaternary processes of this region. The Rock River floodplain, originally sculpted by glacial meltwater, has an average width of approximately four miles, with a maximum width of eight miles in Erie Township near the mouth of the Meredosia Slough. The maximum approximate bluff elevations in the east and west end of the project area are 35 feet and 85 feet, respectively. Extensive terraces exist within the valley as a result of subsequent downcutting of the Rock River through the original outwash floodplain. Numerous sand ridges, often associated with the surface of major outwash areas as terrace deposits (Thornburn 1963:24), are present in the floodplain as well. In appearance, the Rock River Valley is a broad alluvial floodplain with extensive

marsh areas interspersed with low sand ridges.

#### Climate

According to the Trewartha (1968) derivation of the Köppen climatic system, the lower Rock River Valley is characterized by a temperate continental climate (Dca). The Dca climate must have at least seven months averaging above 50°F. and at least one month surpassing 72°F. annually. The average annual precipitation for the Rock River area is 34-36 inches; the average annual snowfall is between 26-30 inches (Atlas of Illinois Resources 1958:35); and the average mean monthly temperature ranges from 27.9°-76.4°F. (Gale 1980:245). A growing season of approximately 170 days exists in the lower Rock River area (Atlas of Illinois Resources 1958:45).

#### Soils

There are three principal soil associations in the project area: (1) the Sawmill-Coffeen-Mixed alluvial land association, consisting of nearly level, well drained to poorly drained soils formed mainly in silty material and found in bottom areas; (2) the Sparta-Dickinson-Coyne association, which consists of nearly level to strongly sloping, well drained to excessively drained soils formed mainly in sandy material, and found on terraces; and (3) the Raddle-Johnson association, consisting of nearly level to

moderately sloping, well drained and moderately well drained soils formed in silty material, and found on terraces (Fehrenbacher 1967; Rehner 1977). Relative distribution of these soil associations in the project area is shown in Figure 2.

Although field survey was not conducted as part of this project, the locational data obtained through literature review and informant interviews suggests a significant correlation between prehistoric and historic site presence and the Sparta-Dickinson-Coyne and Raddle-Johnson soil associations.

#### Vegetation

Specific vegetation communities within the research area include dry, mesic, and wet prairies, scrub oak forest on sandy ridges, and floodplain forests along the river (Schwegman 1973:16). Early 19th-century land surveys recognized distinct vegetational communities, among them marsh, marshy lake, marshy swamp, prairie, bottom prairie, wet prairie, wet bottom prairie, timber, groves, and hazel thickets (United States Government Land Office plats 1832/34) (Fig. 3).

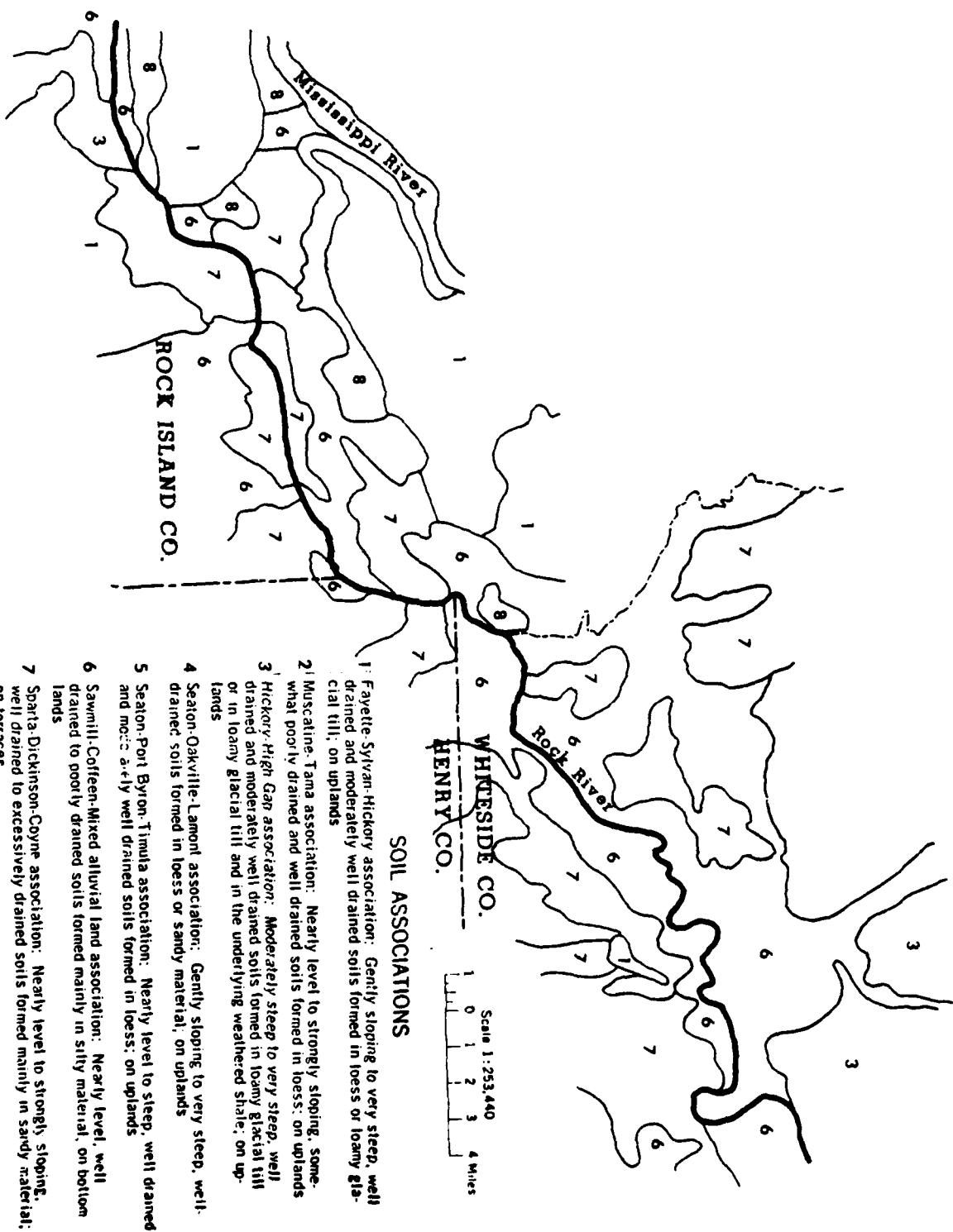


Fig. 2 Soil Associations in the  
1-5 Project Area.

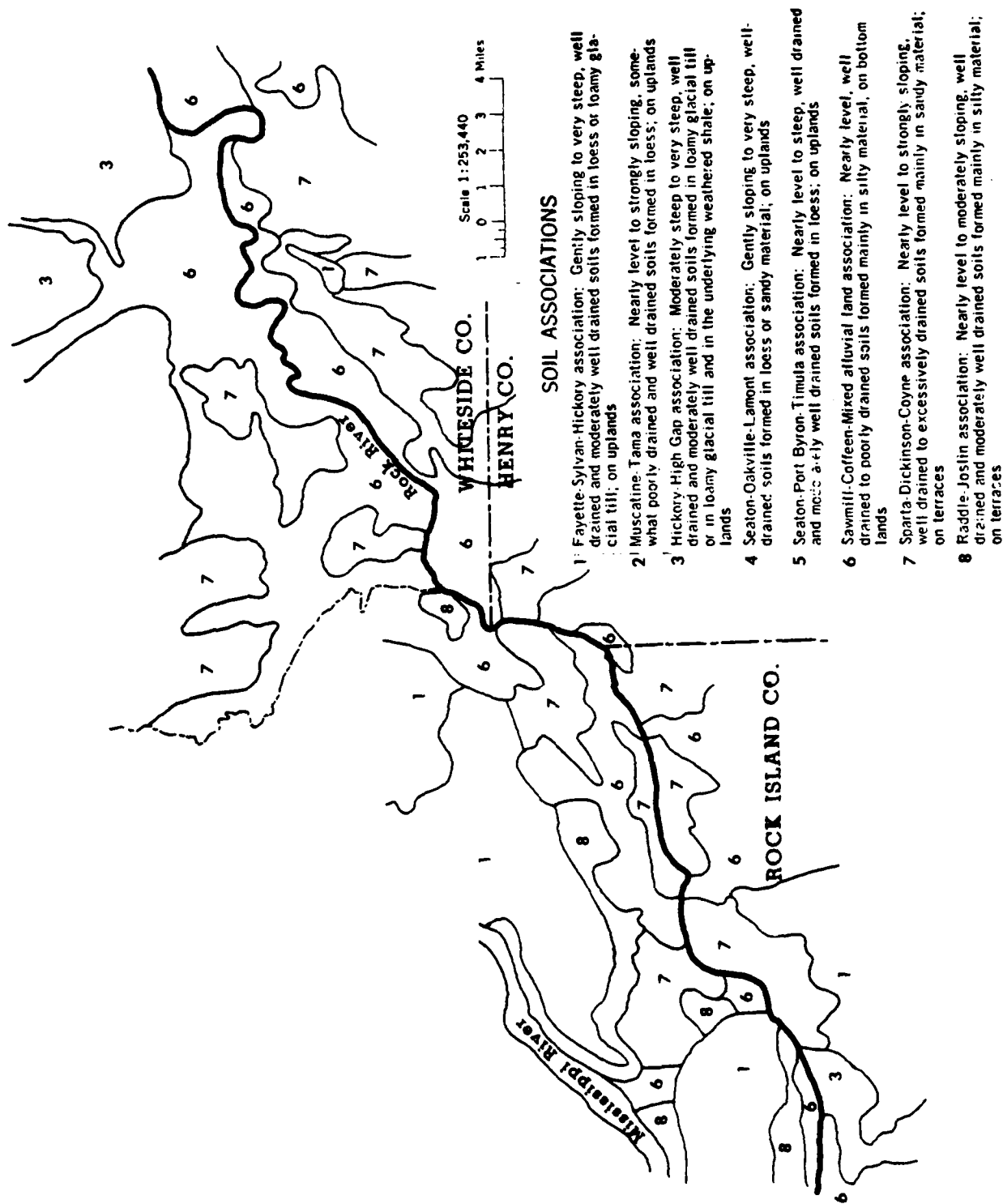


Fig. 2 Soil Associations in the 1-5 Project Area.

(Classifications for Whiteside and Henry Counties were standardized to those in use for Rock Island County)

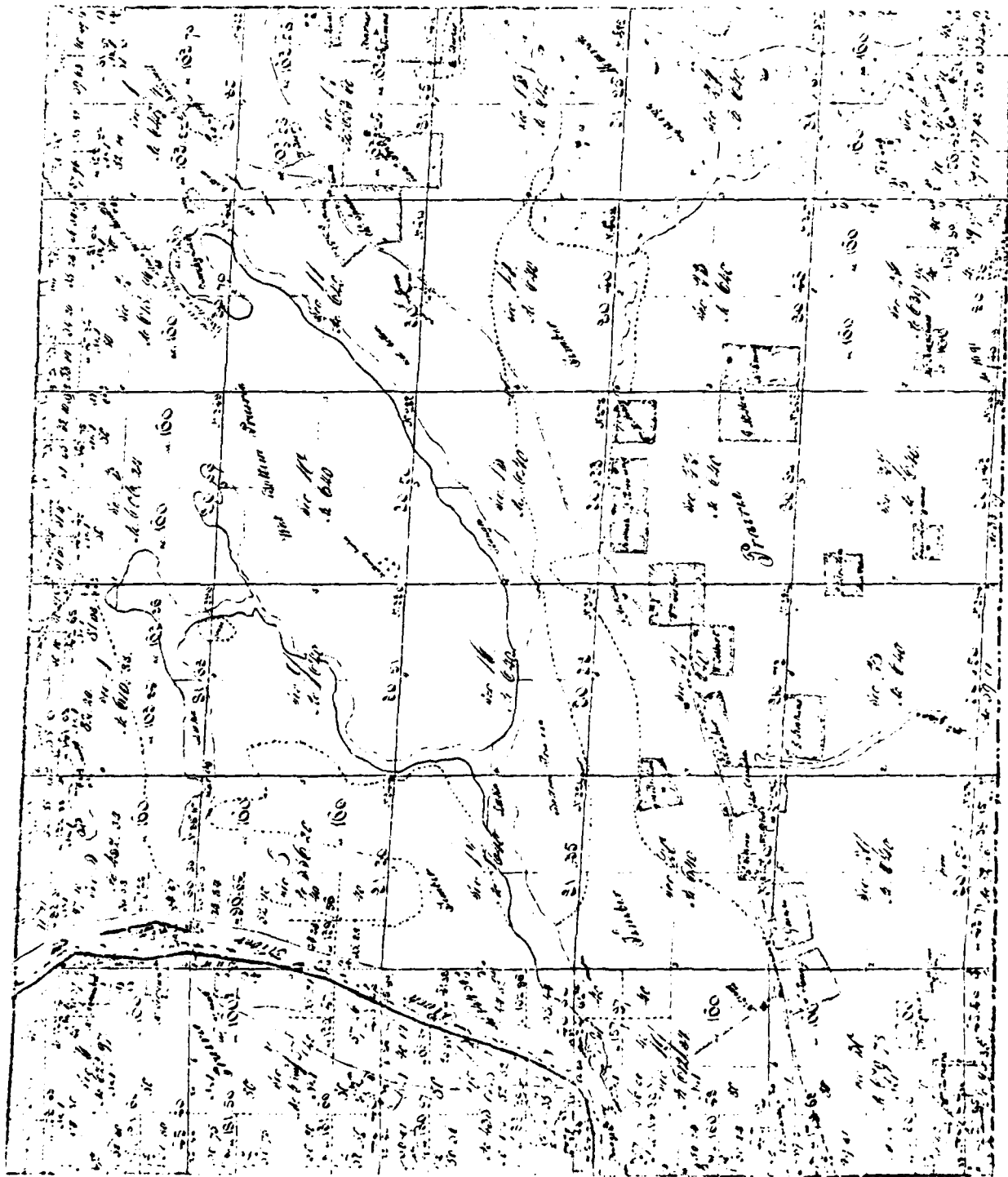


Fig. 3

U.S. Government Land Survey Plat: T18N R3E

## II. UTILIZATION AND EVALUATION OF ARCHIVAL RESOURCES

An attempt was made to visit any local or regional institution possibly having documentary material for this section of the Rock River Valley. The following institutions were visited and checked for documentary and archival material associated with archeological and historical resources:

Milner Library, Illinois State University (Normal).

This was the primary library utilized. The collection consists of the more common relevant local and county histories (Bent 1877; Kett and Company 1877; Davis 1908; Kiner 1910; Bateman 1914; Way 1926; Quaife 1942; Bastian 1968); portrait and biographical records (Chapman Brothers 1883; Biographical Publishing Company 1885; Kett and Company 1885; Clarke Publishing Company 1900); and some more general accounts of the Rock River Valley (Soule 1855; Thwaites 1890; Blount 1911; Illinois Planning Commission 1938; Phalen 1942). The only map resources for the research area are platbooks by Ogle (1893, 1911) and Warner and Beers (1892, 1875).

Moline Public Library (Moline). Some interesting early accounts of life in the vicinity of the Rock River Valley were located here. Tillson (1919), Goble (1881), Meese (1904), Spencer (1872), Stevens (1924), Blanchard (1883), and Smith (1927) are general historical accounts of

early Illinois, while Kramer and Company (1908) and Quayle (1895) are two early Rock Island County accounts.

Rock Island Public Library (Rock Island). The following material was located: an interesting unpublished account of life near Hampton, in Rock Island County; some site-specific information on mills of the area was used in this report, Heagy (n.d.); and accounts by J. Hauberg (1950) and L. Hauberg (1956, 1962) of the early frontier conditions of the lower Rock River region.

Prophetstown Public Library (Prophetstown). The only interesting documentary material also not located at Milner Library was the plat and atlas of Whiteside County by Warner and Beers (1872).

Odell Public Library (Morrison). The public library had very little documentary information relevant to the project area, other than county histories and biographical accounts also found at Milner Library. We located and copied pages from the 1893 atlas of Whiteside County; the only other works of interest were a history of local post offices (Gronner n.d.) and an unpublished history of Morrison (Weaver n.d.).

Black Hawk College Library (Moline). The historical collections of this newer library are extremely small. No additional documentary materials pertaining to the Rock River Valley were located.

Illinois State Historical Library (Springfield).

This was one of the more productive sources encountered during our research. The collection consists of early maps (Blackwell 1837; Holmes 1860; Thompson and Everts 1868); atlases (Ogle 1893, 1911); and general accounts of the Rock River region (Sanders and Davis 1854; Barber 1861; United States Engineers 1838, 1867; McMaster 1893; Rolfe 1929; Fuhr 1974). The library also has a number of documents relating to the early growth of the railroad industry in the Rock River region, including Illinois Laws (1851) and Rock Island and Peoria Railroad Company (1856). The following were also of interest to the Rock River project: Bank of the United States (1841), Kelly (1896-7), and the Illinois Prairie Farmer (1916). The library has a copy of the 1860 Map of Henry County (Holmes 1860) and 1868 Combined Map of Scott County, Iowa and Rock Island County, Illinois (Thompson and Everts 1868). Both maps are extremely rare.

Cambridge Public Library (Cambridge). The documentary resources for the Rock River Valley were very meager here. The library had the 1875 and 1911 plats of Henry County (Ogle 1911; Warner and Beers 1875). Also of local interest were handwritten mill and store ledgers of Mr. Isaac Garey dating to the period ca. 1830-1870, although no mention of the location of the "Garey Mill" was found. A handwritten manuscript, "Record of Lands Sold in Henry

County, State of Illinois, for Taxes and Costs" beginning in the year 1842 was also located. In the holdings of the Henry County Historical Society at the Cambridge Public Library is a copy of the Map of Henry County (Holmes 1860). Accounts of an early settler (The Settler 1859-61) and a report on the early post offices of Henry County (Chase 1964) were also found. The library has copies of the Cambridge Chronicle (1858 to present) and the Prairie Chief (1871 to 1893) on microfilm. Original copies of the Cambridge Chronicle are still available for inspection at the Chronicle office in Cambridge.

Illinois State Library (Springfield). With the exception of common county histories and biographical sketch books, no pertinent material was found.

Illinois Historical Survey Library (Urbana). Very little documentary material pertinent to the project area was found. The Scripps' (1891) manuscript contains information on Black Hawk and the Black Hawk War. Other useful information about the project area is in the state and federal census returns (on microfilm), including the 1830-80 censuses of population and the industry/manufacturing returns. A complete set of the Journal of the Illinois State Historical Society is also located here.

Augustana College (Rock Island). Many relevant materials are available. In addition to the common county

historical and geographical accounts already available at the Milner Library, the Augustana College library contains the following accounts: Armstrong (n.d., 1887), Black Hawk (1833), Wakefield (1834), and Smith (1914), all pertaining to the historic Indian period in the Rock River Valley. Other general histories of the region are: Flint (1833), Matson (1878), Meese (1905), Hauberg (1923), Polson (1968), and Nelson (1970). The library also has a small collection of 1830's letters from Thomas Forsyth, an Indian agent of the lower Rock River Valley, and an early account of the rapids at the mouth of the Rock River (Buford 1829).

Excellent personal resource contacts were also made at Augustana, including: Dr. Roald Tweet, a local historian extremely active in researching the history of the Rock Island Arsenal; Dr. Richard Anderson, a geologist who has done research in the Rock River basin and is interested in the early history of the region; and Dr. Norman Moline, a geographer who also has done research in the Rock River region. All three were of immense help in directing us to pertinent documentary resources.

Putnam Museum-Davenport Academy of Science (Davenport).

The Putnam Museum was contacted in the hope of locating information about historic and prehistoric sites, since the Academy has long been known for their early archaeological explorations in the region. Unfortunately, the files on

these early explorations were very meager, and no sites within the project area were located from these files. The only pertinent files at the Putnam Museum consist of the Illinois Archaeological Survey files, but at the time of the visit to the museum we had not been granted access to these files. The research library at the Putnam Museum has an excellent collection of documentary material on the prehistoric and early historic inhabitants of the Davenport area. Unfortunately, the library is open only by appointment and we were not able to make arrangements to return. Further research at the library may prove useful. The library registrar and unofficial research librarian, Ms. Carol Hunt and Ms. Janice Hall, were both of assistance at the museum.

Bettendorf Museum (Bettendorf). This museum was visited in the hope of locating prehistoric material from the project area; none were found.

Quad Cities Archaeological Society. An interview with the president of the society (Mr. Ferrel Anderson, Davenport) was arranged on the 14th of July, 1980. He was extremely helpful, directed us to a number of prehistoric sites in the project area and gave us many insights into the dynamics of the prehistoric settlement systems. Through Mr. Anderson, contacts were made with individuals who surface collect artifacts from sites within the project area.

No files exist for the Quad Cities Archaeological Society for sites within the project area.

Illinois Archaeological Survey (Urbana). The IAS maintains the active site files for archaeological sites within the state of Illinois. Attempts were made to gain access to these files but we were not allowed access by the Illinois Archaeological Survey. Further research should include consulting these site files.

University of Illinois (Urbana). The most interesting documentary materials here were the Smithsonian Institution Annual Reports for the years 1874, 1879, 1881, including accounts of the antiquities of Whiteside County (Pratt 1874; Tiffany 1874; Farquharson 1874; Moody 1881); of Rock Island County (Thompson 1879; Toellner 1879); and Henry County (Shallenberger 1881). Some general accounts of the Black Hawk War (Black Hawk 1834, 1912; Quaife 1916; Stevens 1903) and a history of the Rock Island Railway system were also found (Nevins 1922).

Illinois State Archives (Springfield). Copies of early 19th-century Government Land Survey plats and field notes for all three counties in the research area are located here. The plats are extremely useful in reconstructing historic vegetation patterns. For northern regions of the state, such as the Rock River region, these plats give detailed locational data for mills, farmsteads, ferry

crossings, roads, quarries, and other cultural features present at the time of the survey. Also available here are federal and state census returns of the 19th century. Dr. Wayne Temple and John Daly were of great assistance to our research.

Illinois Department of Conservation (Springfield).

In the Historic Sites Division file we located approximately 60 prehistoric sites within the project area. The data from these files were extremely sketchy and vague, and only approximate locational information was available for many sites. Literature sources associated with previous prehistoric surveys of the Rock River Valley and surrounding areas were located in the Department of Conservation office, including Fowler (1972, 1974), Fowler and Birmingham (1975), Benchley (1975, 1977), Gray (1980), Fenner (1980), Van Dyke and Peters (1977), and Weichman (1975).

The Historic Sites Division also has the files for the county inventories of the Historic Structures and Landmarks Surveys. No sites in either Henry or Rock Island Counties were located from this source. Whiteside County has a site listed within the Inventory of Historic Structures for the project area. This was the C.B. & Q. Railroad depot (W-118/13) located on the south side of State Route 2, at the railroad tracks in Erie. Also listed, but just outside of the project area, is a late 19th-century

church (WD-H-3), on Spring Hill Road. Another site, the Worthington Home (WD-H-19), is located just outside of the project area on the northwest corner at the junction of Spring Hill and Howard Roads. Built in ca. 1850-55, this structure is the only remaining home of what was once the village of Portland (Illinois Historic Structures Survey 1973).

The Historic Structures interim reports contain a listing of structures of significance for their aesthetic and/or technological characteristics; the Historic Landmarks interim reports lists sites that are significant for their historical merit. These reports are interim reports and do not necessarily represent in depth or complete assessments of the structural or historically significant sites in the project area.

Black Hawk State Park (Rock Island). The museum at the state park contains an excellent display of an historic Indian lifestyle. The Hauberg Collection contains a number of artifacts, especially historic Indian, from the region around the park and Rock Island. No mention of material from sites within the project area was found.

Rock Island County Court House (Rock Island). The Government Land Survey plats, in the county recorder's office, show site-specific information from the period ca. 1832-34. These are an invaluable source for

information on the development of early historic settlement patterns and vegetational reconstructions. The county recorder's office also has a copy of the 1894 Rock Island County plat (Northwest Publishing Company 1894). Information in the form of county deeds and records is available for future research on specific sites.

Henry County Court House (Cambridge). The Government Land Survey plats, and the 1893 and 1911 plat books (Ogle 1893a, 1911) are still in the county recorder's office. A 1916 map of Henry County (Atwater 1916), showing the location of structures for that time period, is posted on the wall in the county clerk's office. Information in the form of county deeds and records is available for research on specific locations.

Whiteside County Court House (Morrison). The Government Land Survey plats are located within the county recorder's office. This office has a copy of the 1872 plat of Whiteside County (Warner and Beers 1872). County deeds and records are available for future search on specific sites.

Rock Island County Historical Society (Moline). The collection at this institution is very impressive. They have extensive vertical files on local history, particularly about the early settlers of the region. Very little new information not already available in the county history

books was obtained. The historical society has an excellent collection of early Illinois maps (Mitchell 1835, 1837; Colton 1853; Ension, Bridgman and Fanning 1858). Atlases within the collection include Northwest Publishing Company (1894) and Iowa Publishing Company (1905). The society also has a collection of handwritten diaries kept by a Coal Valley man between 1867 and 1923 (Bailey n.d.).

One of the more interesting archival finds located during this research was a hand drawn and colored map of the Mississippi River from "Davenport to Rock Island to LeClaire." This undated and unsigned map has the date "ca. 1856" written on the cover. This map shows the location of structures on both the Iowa and Illinois sides, and the detail given to structures on Arsenal Island is of special interest.

Whiteside County Historical Society (Morrison).

Whiteside County does not have a very active historical society, but a small collection of historic artifacts are displayed in a second story office building in downtown Morrison. The unofficial caretaker is a local dentist, Dr. Curt Gronner. Mr. Karl Yost, a Morrison lawyer, is also very active in local historical matters and has an excellent collection of early Whiteside County documents and books. Of special interest are a Map of the Illinois River Railroad (1856) and an 1858 account of the Sterling

and Rock Island Railroad Company. Mr. Yost is the editor of the American Reprint Series which has published Soule's (1855) account of his travels in the Rock River country. In an interview with Mr. Yost, the subject of the 1860's series Map of Whiteside County, Illinois and its probable location came up. He was under the impression that this map does exist but did not remember where he had seen a copy of it (Yost, 1980 personal communication). Similar maps of Rock Island County (Thompson and Everts 1868) and Henry County (Holmes 1860) do exist and were located by our research.

Henry County Historical Society (Cambridge). The holdings of the society are very meager and are held by the Cambridge Public Library. Materials of interest were listed under the library's heading.

The following title and abstract companies were contacted to look for early maps of the Rock River country, but none were located. The companies are:

Rock Island Title and Abstract Company  
Rock Island, Illinois

Rock Island City Abstract and Title Guaranty Company  
Mr. Raymond Berger, Sr.  
211 18th Street  
Rock Island, Illinois

Northwestern Title Company  
Morrison, Illinois

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### III. PREHISTORIC PERIOD

#### Paleo-Indian (Prior to 8000 B.C.)

Although no Paleo-Indian sites were identified within the research area, one Folsomoid projectile point from the nearby uplands was present in one private collection. This artifact was manufactured from Hixton silicified sandstone, a quartzite from formations near the Black River Falls in Wisconsin. To date, the Paleo-Indian occupation in this area is known only from the surface recovery of fluted projectile points (Benchley and Gregg 1975:12).

#### Early Archaic (8000 to 6000 B.C.)

Three Early Archaic sites, one Early Archaic component on a multi-component site, and one late Early Archaic site are present in the research area. Diagnostic materials from these sites consist of one Agate Basin-like point, one Hardin Barbed point, one St. Charles point, one Thebes point, and one Lecroy-like point.

The presence of Early Archaic sites in a bottomland context has not been frequently observed in other Illinois valleys (Luchterhand 1970), a discrepancy believed to result from alluvial burial of sites. The visibility of such sites in the lower Rock River area is attributed to the presence of sand ridges and remnant terraces, features

less affected by alluviation.

Several of the Early Archaic projectile points observed in collections were manufactured from Hixton silicified sandstone. The presence of this material is suggestive of interregional trade relationships between Wisconsin and the lower Rock River Valley during the Paleo-Indian and Early Archaic periods.

According to Chapman (1975:275ff), the bifurcated-base projectile point is a horizon marker for the late Early Archaic during the 7th millenium B.C. It is possible that the presence of the bifurcated-base tradition in the project area is negligible since only one Lecroy-like projectile point was observed from a site within the research area. Chapman (1975:242) suggested that truncated barb bifurcated-base points be called Kanawa points, while Lecroy points are common in the Bloomington Ridge Plain province south of the Rock River Valley (Munson and Downs 1966:203-207); Fox Valley points are concentrated in southern Wisconsin and Northern Illinois (Perino 1971:36). Although a limited number of Fox Valley points were observed in collections, they had always been collected in upland situations outside of the Rock River Valley on the Green River lowland. Chapman (1975:266) also suggested that people making bifurcated-base projectile points utilized the oak/hickory forest within the blue stem prairie. Such an

adaptation to an upland vegetation situation is compatible with the pattern observed in the Rock River area. Further research is necessary to determine if bifurcated-base projectile points are significantly absent from the Green River lowlands, and if the observed pattern of Fox Valley points in upland settings versus Kanawa/Lecroy points in valley/forest settings holds with increased sample sizes and improved contextual and distributional data.

Middle Archaic (6000 to 4000 B.C.)

The exact relationship between people represented by the bifurcated-base tradition and those who utilized Early Archaic lanceolate forms in northern Illinois is unknown. The sequential relationship between Early Archaic and Middle Archaic is no less enigmatic, and a great discrepancy exists in the recognition of definitive Middle Archaic artifacts. This difficulty has previously been encountered in northern Illinois (see Dudzik 1974:16) and elsewhere. For example, in Tennessee the Stanley-type cluster, an evolutionary variant of the bifurcated-base tradition, marks a diagnostic Middle Archaic artifact type (Chapman 1977:125); no similar artifact forms were observed during the Rock River survey. It is possible that Middle Archaic artifact assemblages are not significantly different from their Late Archaic counterparts, and Winters (1959:14-15)

has suggested that Middle Archaic characteristics lasted until the introduction of ceramics. Cook (1976:87) noted that dates for sites with the characteristic side-notched projectile points range over 5 millennia. Chapman (1975:158) stated that side-notched projectile points became prominent in Middle Archaic and continued into the Early Woodland period. Fowler's (1959:37) seriation of projectile points from the Modoc Rock Shelter revealed a frequency indicating that side-notched points became prominent after 6000 B.C., most popular around 4000 B.C., and remained the major type until 3250 B.C. Although side-notched point types have consistently been used as Late Archaic time markers (Bell 1958:68; Cook 1976), their occurrence in a Middle Archaic context seems indisputable. Unfortunately, not enough research has been conducted to permit recognition of fine chronological indicators within this broad group. Therefore, all sites within the research area with side-notched projectile points were included in the Late Archaic period.

#### Late Archaic (4000 to 1000 B.C.)

The Late Archaic period is represented by eight single component sites and one Late Archaic component in a multi-component site. All are Helton phase sites (Cook 1976), characterized by the occurrence of various

side-notched point types within the research area, including Matanzas, Table Rock, Big Sandy, Osceola, and Raddatz.

Late Archaic sites within the lower Rock River Valley bear cultural affinities with the Old Copper tradition of Wisconsin. The predominance of Osceola and Raddatz projectile points and the documented presence of diagnostic copper implements (Bent 1877:33; Toellner 1879:363; Worthen and Shaw 1873:166) are suggestive of this relationship. Ferrel Anderson (personal communication) stated that copper implements are rare but do occur within the Rock River area, and several rat-tail copper projectile points have been recovered by collectors.

Late Archaic sites are abundant in the Rock River floodplain, suggesting that the riparian environment was integral to Late Archaic subsistence. An alternative to this hypothesis is the possibility that the abundance of Late Archaic sites in the study area is a function of site exposure. Geomorphological processes may have obscured the location of many sites, making it difficult to fully understand Late Archaic subsistence and settlement patterns without fully correlating geomorphological and archaeological dates. It is highly unlikely that the river bottom functioned independently of the upland/hinterland, and research integrating both areas will be necessary to fully understand regional development. Sites are generally small and

characterized by the occurrence of lithic debris, knives, scrapers, and projectile points. A primary function of Late Archaic sites in the floodplain may have been the procurement of animal resources. Differentiation of site function is also indicated by the presence of small lithic concentrations without projectile points (perhaps a sampling bias reflecting collector activity), the presence of two possible workshop sites in the research area, and the occurrence of shell middens in the lower part of the valley. Bluhm et al. (1961:8) suggested that mussel beds near the mouth of the Rock River may have been more productive, thus accounting for the near absence of such middens further upstream. The localized occurrence of this resource may be expected to have structured prehistoric procurement practices within the research area. However, only one such shell midden was documented during the collector survey.

#### Early Woodland (1000 B.C. to 300 B.C.)

Previous surveys of the Rock River from the Wisconsin boundary to Prophetstown found only three Early Woodland sites (Peters 1972:76-80; Birmingham 1975a:72-78). The present survey noted the location of one Early Woodland site in the lower Rock River Valley, although this site was recorded by the collector survey and has not been substantiated. Early Woodland remains were not present in the

collections examined. An Early Woodland component has been reported from 11-Ri-217, near Milan (Van Dyke 1981; Van Dyke and Peters 1977) close to the Rock River Mississippi River confluence. Since there is an abundance of Late Archaic and Middle Woodland sites in this area, the paucity of Early Woodland remains is a very interesting problem that must be explored further.

Middle Woodland (300 B.C. to A.D. 400)

Middle Woodland remains in the project area consist of two habitation sites, one habitation site with an associated mound group, and three Middle Woodland components in multi-component sites. Different site types within the floodplain are indicated by the presence of mound groups, ceramic sites and aceramic sites characterized by projectile points and lithic debris. Springer (n.d.:3) has defined a Middle Woodland workshop site near the mouth of the Rock River where the local banded, blue-gray "Moline chert" (Benchley et al. 1977:83) was processed, and Middle Woodland workshop sites may be expected to occur in the research area as well. Moline chert was observed in collections throughout the research area and may have been exchanged through interregional systems, especially during the Middle Woodland period. This variety of chert has been found at least 60 miles away in the Mississippi River Valley (F. Anderson, personal communication).

Artifacts representing the exchange network defined as the Hopewell "Interaction Sphere" (Caldwell 1964; Struever 1964), occur on sites in the research area. Two specimens of Knife River chalcedony from the Dakotas were observed in local collection; this material, although rare in the area, is apparently recovered exclusively at Middle Woodland sites (F. Anderson, personal communication). Other interaction sphere objects (i.e., clay figurines, obsidian, mica, Hopewell ceramics, Dongola chert, Hixton silicified sandstone) have been recovered from the Albany site, a major Middle Woodland complex in Whiteside County (Hansen, personal communication and Benchley et al. 1977:53). Due to the proximity of the Albany site to the Middle Woodland sites in the research area, it is suggested that these communities represent elements within one integrated system. A detailed analysis of these sites could reveal a distinctive regional settlement pattern as well as the processes involved in making locational decisions.

Middle Woodland sites are not randomly distributed within the Rock River Valley. Previous survey along the upper Rock River has revealed a total of six known Middle Woodland sites north of Sterling (Birmingham 1976:69). The present survey defined six Middle Woodland sites and 11 unspecified Woodland sites within an area less than one-half that encompassed by the previous survey. It is

probable, then, that a greater density of Middle Woodland sites exists in the lower Rock River Valley. It can be suggested that the Middle Woodland subsistence strategy involved the exploitation of the extensive floodplain near the junction of the Meredosia Slough and the lower Rock River, and that such a location would maximize the procurement of seed-bearing annuals (see Struever 1968:285-312). This area is also extremely rich in waterfowl and aquatic resources and exploitation of these resources were no doubt important.

#### Late Woodland (400 to A.D. 1000)

Three Late Woodland sites, one Late Woodland mound group, and 11 unspecified Woodland sites occur in the research area. Although a high density of Late Woodland sites is present in the Rock River Valley (Bluhm et al. 1961: 4), they were not as intensely occupied as Middle Woodland sites (Benchley and Gregg 1975:18).

Griffin et al. (1970) have suggested cultural continuity from the Havana tradition to the early Late Woodland period. They see the Late Woodland period beginning with the disappearance of the Havana Tradition artifacts, and the increasing occurrence of Weaver Tradition artifacts; the Havana Tradition gradually disappeared and was replaced by the Maples Mills Phase after A.D. 700 (Griffin et al.

1970). Although this transition from Middle Woodland to the Late Woodland has been discussed in several recent studies, Hurley (1974), Riggle (1977), Bentz (1980), and Benn (1980), little agreement exists on an exact cultural chronology for this period. Much of the disagreement centers on whether or not Weaver represents the decline of Havana and is thus Middle Woodland, or if Weaver is the "new ware" and is thus Late Woodland. Regional differences and a lack of excavation data for the lower Rock River make comparison difficult.

The presence of Canton Wares in the lower Rock River is of interest. In the Spoon River area, Canton Wares are viewed as an intrusion, while Sepo (the Late Woodland ceramic style), is seen as having developed from Weaver (Harn 1975:416). The presence of Canton Wares in the research area suggests an extensive geographical distribution for this ware.

Many questions exist concerning the Middle to Late Woodland transition. The questions are oriented both to problems of chronological relationships and of cultural interaction. The seeming contemporaneity of Weaver, Linn Ware (Iowa), and Steuben ceramics sets up numerous interesting questions about relations between groups who practiced broadly similar subsistence strategies, exploited similar environments, and yet made very dissimilar ceramics, and disposed of their dead in ways that differ in important

details (Stan Riggle, personal communication).

Although the Late Woodland period is often given a terminal date of about A.D. 1000, Woodland groups in this area survived into the Early Historic period. The Proto-historic period represents the first influence of European contact and trade on indigenous populations. However, few sites representing this transition are known, and none are known in the project area.

Mississippian (900-1000 to A.D. 1200-1300)

No Mississippian habitation sites were encountered in the project area. However, there is a possibility that transient remains are present. One small lithic concentration with a triangular point, one isolated basally notched triangular point, and one isolated Cahokia point were observed in collections from the research area. Such remains may represent kill sites or camps associated with the procurement and processing of faunal resources. The presence of similar Late Woodland and Upper Mississippian remains has been noted for the upland areas of the Bloomington Ridged plain (Coleman n.d.).

A total of eight Upper Mississippian habitation sites are present in the Rock River Valley; seven are concentrated in the Sterling-Como-Elkhorn creek area (Birmingham 1975b:75). These sites are apparently related

to the Fisher and Langford traditions (Birmingham 1975:75). The Langford tradition is a local expression of Upper Mississippian culture (Brown et al. 1967:36) within the Illinois Prairie areas of northeastern Illinois (Faulkner 1972:158); the Fisher tradition developed in the Illinoian-Carolinian edge, particularly in the glacial lake plain situation, and then spread into northwestern Illinois (Faulkner 1972:158). The co-occurrence of both traditions within the Rock River area provides an opportunity to examine the nature of the relationship between both cultures.

One problem noted in the Rock River Valley is the absence of Middle Mississippian remains (Bluhm et al. 1961: 5). This is a puzzling situation since Aztalan, a major Middle Mississippian center, is located on a tributary of the Rock River in Wisconsin, and the lower Rock River is expected to have been a corridor for trade and transportation from Aztalan to communities in the Mississippi Valley. The absence of Middle Mississippian sites suggests three hypotheses: (1) trade with Aztalan proceeded along a different route; (2) goods obtained by Aztalan were shipped directly to the Mississippi River without intermediaries; or (3) Late Woodland and Upper Mississippian groups along the Rock River functioned as middlemen for trade between Aztalan and the Mississippi River groups. The first hypothesis seems unlikely, since there is no other direct route

to Aztalan from the Mississippi River. More trade items would presumably be found along the Rock River if hypothesis three is correct, and excavation of Late Woodland and Upper Mississippian sites along the Rock River should help to reject either hypothesis two or three.

Late Woodland and Mississippian people may have co-existed in the Rock River study area, but little documentation for this was found during the literature search. No Mississippian habitation sites and only seven Upper Mississippian sites were documented. The lack of data for the Mississippian Period in the area may reflect a difference in preference for site locations, political and economic differences, or more specialized and spatially focused activities.

#### Prehistoric Summary

Late Archaic sites are abundant within the floodplain; most are probably small hunting camps but different functions are indicated at other sites. Two lithic workshop sites were noted, as well as an abundance of lithic scatters with no diagnostic implements. An evaluation of resource proximity may provide the best means for determining site function in these cases. It is suggested that the presence of extensive mussel beds located in the lower Rock River may have structured site locations to facilitate

exploitation of this resource during the Archaic and other periods.

Early Woodland sites in the Rock River Valley are rare, and most are established habitation sites. Other Early Woodland sites for the extraction of critical resources are expected to exist in the Valley as well. The paucity of Early Woodland remains in the Valley is a perplexing problem.

Sites of the Middle Woodland period are abundant. Base camps, mound groups, lithic workshops, and other aceramic extractive camps are present. Apparently, there is a definite trend within the Rock River Valley for Middle Woodland sites to be situated near unusually large floodplain locations. In the research area this constitutes the area near the junction of the Meredosia Slough and the Rock River Valley.

On a comparative basis, Late Woodland sites are more abundant but smaller. Habitation sites and mound groups attributable to Late Woodland cultures exist. Small transient hunting station sites are present, as well as isolated projectile points. In many ways, the Late Woodland settlement and land use patterns represent the exploitation of diverse resources similar to the Late Archaic pattern.

Mississippian sites are also rare in the Rock River Valley. One complex of seven Upper Mississippian sites

exists in the Sterling area. The economy of Upper Mississippian cultures consisted of mixed farming, hunting and collecting, with the seasonal cycle particularly emphasizing the exploitation of the riparian environment (Faulkner 1972:157). Other seasonally specific extractive sites (for example, hunting stations, quarries, fishing camps, etc.) are expected to occur within the project area. One Late Woodland/Mississippian transient camp and some isolated Madison points are present.

#### Protohistoric Indian

Since only one Protohistoric Indian site of an unspecified type exists within the project area, it is difficult to reconstruct land use patterns. However, it may be inferred that the riparian environment was exploited for resources, and associated extractive camps should be present. Little data on the Protohistoric period exists and almost no information exists as to who the native groups were who inhabited the area. During the Historic Period several native groups inhabited the area and these are discussed in the Historic section of this report.

#### Research Questions/Predictive Models

The following future research questions and predictive model considerations can be generated on the basis of the data presented in this report.

1. What is the nature and extent of prehistoric occupation and land use in the southern portion of the Rock River Valley?

Prehistoric land use nearly always centered on a number of physiographic/biotic zones to maximize the procurement of resources. The Rock River survey focused on one such zone, at the exclusion of others. There, archaeological sites within the project area must be considered as elements within a greater settlement system.

The first evidence of occupation within the valley occurred in the Archaic Period. Early Archaic sites are probably representative of small hunting camps. There is scant evidence for occupation in the valley during the late Early Archaic, but the settlement/subsistence pattern during this period suggests a primary emphasis on upland areas, with a nearly complete avoidance of large floodplain environment. This apparent emphasis on upland areas may, in part, be due to a sampling bias with some sites being observed by recent geomorphological processes.

Middle Archaic sites are believed to be represented in the valley; however, the positive identification of such sites was hindered by an inability to identify Middle Archaic assemblages. It is suggested that little evolution of lithic assemblages occurred from Middle to Late Archaic

times, and that side-notched projectile point forms characterize both periods.

2. What is the role of the Rock River as a transportation link between the Middle Mississippi Valley and central Wisconsin?

No Middle Mississippian remains have been located within the Rock River Valley. It is difficult, however, to identify another plausible route from the Mississippi River to Aztalan. The possibility exists that trade between these two areas was direct without intermediate stops. It is also possible that Late Woodland and later Upper Mississippian groups functioned as middlemen for trade along the Rock River. The cluster of Upper Mississippian sites in the Sterling area may have been stimulated by such trading activities.

3. What is the nature of Mississippian occupation along the Rock River, and what are the cultural and chronological relationships between Mississippian people and Late Woodland groups suspected to be contemporaneous with them?

Benchley et al. (1977:14) implied that Late Woodland tradition populations occupied the area until historic times. The lack of Upper Mississippian sites in the project area, particularly within the broad floodplain at the juncture of the Rock River with the Meredosia Slough, is

curious. Such an area would have had considerable agricultural potential and was one of the first areas exploited by European settlers. This observation would tend to support the hypothesis that Late Woodland groups occupied portions of the Rock River into historic times. For sites in northeastern Illinois, Brown et al. (1967:36) has argued that the Upper Mississippian tradition is the result of Middle Mississippian influence on resident Late Woodland populations. However, the presence of the Fisher complex in Whiteside County is an intrusion into northwestern Illinois (Faulkner 1972:159). Clearly, this question will only be resolved through excavation and precise dating of the Late Woodland and Upper Mississippian occupations along the Rock River.

Other questions that can be raised are:

4. What interregional relationships and cultural ties between the lower Rock River Valley and other areas have existed through prehistory?

The Paleo-Indian and Early Archaic sites in the Rock River Valley may have ties with the north, since Hixton silicified sandstone is a common material for projectile point manufacture. Cultural affinities with Plains traditions are also suggested by the presence of certain Early Archaic projectile points; the Hardin Barbed variety bears a striking similarity to Scottsbluff points, and the Agate

Basin type is predominately a western form.

During the Middle and Late Archaic period, cultural ties with the Old Copper culture of Wisconsin are indicated, largely by the presence of copper implements.

Based on ceramic and lithic typologies, the Early and Middle Woodland traditions bear stylistic affinities with the Illinois River Valley. Increased interaction on an interregional scale during the Middle Woodland period is also suggested by the presence of obsidian from the Yellowstone area, Knife River chalcedony from the Dakotas, Hixton silicified sandstone from Wisconsin, and Dongola chert from southern Illinois/Indiana.

Two Late Woodland traditions are present in the Rock River Valley. The Weaver tradition is a direct development from the local Havana tradition and bears similarities to Late Woodland sites in the Illinois River Valley. The Maples Mills tradition probably originated in the area north of the Rock River Valley, and it is widely distributed in Wisconsin, Iowa, and Illinois.

Mississippian period sites in the Rock River Valley are a local Late Woodland expression of the Mississippian culture. The Langford and Fisher traditions are coextensive in northern Illinois.

5. What is the nature of Early Woodland occupation within the Rock River Valley?



Site No.

[illegible]



**TABLE 1 (continued)**

[illegible]

The scarcity of Early Woodland sites in the Rock River Valley is a problem since there are many Late Archaic and Middle Woodland sites. Ceramics may have been introduced relatively late to this area, and this would tend to reduce the archaeological visibility of the time period. Early Woodland sites are rare throughout Illinois, which suggests that the state was sparsely occupied or that we are failing to recognize some Early Woodland sites. If ceramics were utilized only in certain seasonal settlements, our sample of Early Woodland sites would be biased because non-ceramic sites would tend to be classified as Archaic.

#### IV. HISTORIC PERIOD

This section develops a chronological framework for the Historic Resources within the project area and incorporates considerations of environment, settlement, and economic patterns relevant to the lower Rock River. Emphasis was on transportation and economic networks relevant to ethnic and settlement distributions.

##### Stage I (1673-1760): Early Exploration

The Joliet and Marquette expedition in 1673 marked the beginning of the historic period, and the period 1673 to 1760 saw early French exploration and missionary expeditions into the Illinois country. The French were explorers

and traders, not settlers, and left only temporary sites reflecting their transient lifestyles. Euro-American sites from this period were thus short-term camps or fur trading and military posts. Trewartha (1938:183) pointed out that within the driftless region of northwestern Illinois and southwestern Wisconsin, all the known French fur trading sites "were situated alongside the Mississippi River" emphasizing the importance of river transportation systems to early French explorers. No Euro-American sites from this period were documented within the project area.

Very little is known about the native American population during this period. One of the earliest maps depicting the Rock River region in any recognizable form is the Franquelin Map of 1688 (Tucker 1942:plate XIb), which refers to the Rock River region as the "River of the Kickapoo (of Illinois)." It appears that the early 1700's marked the beginning of the replacement of the Kickapoo and Mascouten in the Rock River country by the Sauk and Fox, from what was to become the state of Wisconsin. The Sauk and Fox relocated due to population pressures in Wisconsin, that were brought on by the early French trading population and displaced Indian groups from the east. By 1741, a Sauk village had been established at the mouth of the Rock River (Wheeler-Voegelin 1974:53), and by about 1700 the Sauk of the Rock River region had driven the Kaskaskia, not

the Kickapoo, out of the region (Wheeler-Voegelin 1974:158); this is contradicted by the Franquelin Map of 1688. It is quite possible that this portion of northwestern Illinois was utilized by both the Kickapoo and the Kaskaskia during the late 17th century, and that the Sauk and Fox were responsible for forcibly ejecting both the Kaskaskia and the Kickapoo from the Rock River country.

Stage II (1760-1825): Euro-  
American Establishment

This period represents the French loss of the Illinois country due to the Seven Years War and subsequent control by the British. A change in the settlement pattern resulted in a number of small independent traders and trappers competing for the Indian trade during the early years of this period. Trewartha (1938) noted two activity centers (Prairie du Chien and Dubuque) in the region to the north, while three main activity centers developed on the lower Rock River: at Dixon, at the mouth of the river at Rock Island, and at the Winnebago village at Prophetstown.

During the winter of 1760-61, a group of 132 Frenchmen from the Mackinac post were unable to travel farther south because of conditions on the Mississippi River. The group, under the command of "Monsieur Beaujen, Captain of Canada," wintered with the Renards (Fox) and the Sakkis (Sauk) at their winter site on the Rock River, approximately

75 miles west of Fort Ottawa and 15 to 20 miles above the mouth of the Rock (Wheeler-Voegelin 1974:143-44).

The Spanish Lt. Governor of the Illinois country, Francisco Cruzat, claimed in 1777 there was a Winnebago village five miles upstream from the mouth of the Rock River. Whether or not this village was as close to the mouth of the Rock River as Cruzat claims is questionable. Winnebago and Sauk were both documented as being on the lower Rock River in 1777-78 and in 1779, but in April of 1779 only "a small number" of Sauk were reported at the mouth of the Rock River. No mention was made of the upstream Winnebago village (Wheeler-Voegelin 1974:166-67).

A large group of 700 Sauk warriors were reportedly located at their summer village three miles from the mouth of the Rock River in 1780, a site (Sauk-E-Nuk) that was destroyed by American troops in June, 1780 (Wheeler-Voegelin 1974:168).

Robert Dickson, a British trader, claimed in 1793 that the Sauk had "a large village" at the mouth of the Rock River, and stated:

. . . they raise the most corn of any Indian nation in this country. The Reynards (Fox) live betwixt the Sacque Village and the Prairie du Chien. They hunt mos'ly to the southward (Wheeler-Voegelin 1974: ).

In 1805, Zebulon Pike of the United States Army traveled from St. Louis to the source of the Mississippi River.

While on that trip he recorded a Sauk Indian village about three miles up the "Riviere de Roche." He also stated that these Indians:

. . . hunt on the Mississippi and its confluent streams, from the Illinois to the River Des Moines; and on the plains west of them, which border the Missouri. They are so perfectly consolidated with the Reynards (Fox), that they scarcely can be termed a separate nation. . . . They have for many years past made war (under the auspices of the Sioux) on the Sauteaux (Chippewa), Osage, and Missouries . . . they now raise a considerable quantity of corn, beans, and melons (Wheeler-Voegelin 1974:209-10).

With the War of 1812, the Sauk Indian village on the lower Rock River lost its pro-American members and became the gathering place for pro-British Indian factions. These latter groups included members of the Sauk, Kickapoo, Piankashaw, Winnebago, Potawatomi, Ottawa and Menominee nations. A gathering place for the pro-American Indians was at the mouth of the Des Moines River across the Mississippi, and included members of the Sauk, Fox, Kickapoo, Piankashaw, and Iowa nations (Wheeler-Voegelin 1974:219-245). With the St. Louis treaty of 13 May 1816, the United States and Great Britain agreed to end all hostilities between them and the Indian tribes. Thomas Forsyth, an Indian agent for the U.S. government, and Major Stephen H. Long, topographical engineer, noted that in June, 1817, "the whole of the Saukie nation . . . was located at their

old village" with 2-3,000 inhabitants (Wheeler-Voegelin 1974:251).

During this period, Euro-Americans started to move into the region, predominantly traders and trappers, who carried on business with local Indians. Very little was documental about these individuals and their lives within the Rock River region. However, during this period, the Rock River must have been a well-traveled corridor between the Great Lakes region and the Mississippi River. Only a few documented sites were found for the project area in this time period, and their exact locations are unknown.

One early trader within the general project area was George Davenport. Davenport, a veteran of the War of 1812, operated a trading post and Mississippi River ferry crossing at the mouth of the Rock River. Mr. Davenport was extremely influential in the selection of the Fort Armstrong site and its associated settlement (Way 1926:143). Oral history claims, and it seems highly probable given the large number of Winnebago Indians living in the region, that Davenport also operated a trading post in the early 19th century within the Rock River bottom near Prophet's Village (Prophetstown; F. Anderson, personal communication).

Antoine LeClaire, a French trader and trapper, was also active near the mouth of the Rock River, but it is doubtful he actually transacted business in the project

area. Pierre LaPorte, another Frenchman known for his escapades in the Rock River Valley between 1780 and 1810, maintained a downstream terminal for his trapping at the mouth of the Rock River. Another French guide and trapper documented in the Rock River country was LaSallier, who worked and settled in the Dixon ferry crossing region. Farther up the river, near the present town of Beloit, another Frenchman, Thiebault, operated a trading post near a Winnebago village (Way 1926:137-8, 141).

Euro-American and Indian relationships in the Rock River region of Illinois were strained between 1820 and 1832. The encroachment of white settlers near the Fox and Sauk village of Sauk-e-nuk caused considerable trouble between the Indian and Euro-American populations. With the Treaty of 1804, the land between the Mississippi and Illinois Rivers within the northern portion of the state was ceded to the United States government by the remaining Indian groups. As long as this land remained in the public domain, the Sauk and Fox could stay at Sauk-e-nuk and hunt in the lower Rock River region (Peace 1918:153).

The Winnebago War of 1827, a short-lived uprising in northwestern Illinois, foreshadowed future problems. In 1828, President Adams opened land at the mouth of the Rock River to Euro-American settlements, and this, along with the Indians' inability to comprehend land treaties and the

whites' hatred for the Indians, resulted in the well-known Black Hawk War in 1832 (Howard 1972:147-152). The Black Hawk War finally freed the remainder of the Illinois Indian-held land for white settlement and erased the Indian "threat" within Illinois (Stevens 1903). No sites associated with the Black Hawk War were located. An historic plaque on the Rock River bridge near Hillsdale claims that American soldiers, in pursuit of Black Hawk, camped near there in 1832, but this would have been a very transient site; whether it actually exists where the sign claims is doubtful.

Bent (1877) documented the locations of a few historic Indian sites in the project area. He claimed that "in the winter of 1836-37 there were approximately 2,000 Indians camped in the timber between Prophetstown and Lyndon, many of which remained through the year of 1837" (Bent 1877:267). The exact location of this site is unknown. He also noted that:

. . . before the settlement of the White Man, the township (Portland) was a favorite hunting ground of the Indians, as the prairie extending to Eight Mile Grove in Henry County abounded in deer, and Rock River . . . afforded an abundance of fish. Thunderbolt Hill, named in honor of an Indian chief of that name, was their burying ground, and skulls are yet frequently dug up there (Bent 1877:341).

This site is just outside the research area, near the abandoned village of Portland. Located across the Rock

River, near the present town of Prophetstown and just outside of our research area, was the Winnebago village of the Prophet. Bent stated that:

. . . the Indians had several villages along the banks of the Rock River in the vicinity of the Prophet's Town, as the stream afforded an abundance of fish, their favorite food. . . . One of these villages was situated at the mouth of Walker's slough, one at the mouth of Coon Creek, and another on the bottom near the present railroad bridge. . . . Indeed it was an Indian paradise (1877:363-64).

All of these sites are located just outside of our research area, but the possibility of associated sites across the river within the project area is extremely high.

Joseph Fenton and his family moved to Whiteside County in October of 1835 and constructed a cabin "in the woods near the bank of the Rock River" (Bent 1877:194). During the fall and winter of 1835-36, Mr. Fenton had 40 Winnebago Indians for neighbors. According to Bent, these Winnebago were on a hunting expedition, but stayed for a portion of the winter. This site is probably located within Section 4 of Erie Township on the Rock River bottoms, near the Fenton cabin (Bent 1877:194).

Previous archaeological surveys failed to report many historic sites; for example, Benchley (1977a) found none. Bluhm et al. (1961) found only a few, and pointed out the discrepancy between the documentary evidence, which suggests a high historic Indian-site density, and their

survey results. Either these surveys were not locating historic sites or failed to recognize them as such.

Historic Indian sites may be located in physiographic regions that have not received adequate survey coverage. It appears from the documentary evidence that a high percentage of historic Indian sites were located on the river banks, reflecting the importance of river transportation and subsistence exploitation at that period (see, for example, Pike's account on the Mississippi River in 1805; Wheeler-Voegelin 1974:208). It is possible these sites may have been destroyed through modern farming practices, levee construction, or natural fluvial processes; sites may also still exist along the river's edge under the protective cover of lowland forest or alluviation.

Only one historic site was recorded, through our interviews with artifact collectors from the project area, and this was the Unash Village site (#12), which, according to Mr. Ferrel Anderson, reportedly has a historic component. It remains to be determined whether or not this is a historic Kickapoo component. Wheeler-Voegelin (1974:286) documented one definite historic village for the period ca. 1777 within the project area. This site, possibly the wintering grounds for the Fox/Sauk and Beaujen and his 132 French companions, may in fact be represented by the historic component of the Unash Village site (#12). Sites

located through documentary research can only be validated as to temporal or cultural affiliation through archaeological research.

Stage III (1825/30-1855): Initial Euro-American Settlement and Land Improvement

The late 1820's and 1830's saw the end of the fur trading era and the beginning of a new period of development. Without the threat of Indian raids, the northwestern portion of Illinois quickly opened up to settlement. A new "wave" of immigration into the northern regions of Illinois, especially the Rock River region, began.

An increase in mining activities in the Fever River region around Galena during the period ca. 1825-30 resulted in the construction of Kellogg's Road from Peoria to Galena, via the Dixon ferry crossing at the Rock River. Travellers along this road in the 1830's were responsible for an increased awareness of the Rock River country.

The virtues of this section of the state were expounded on by such early authors as Mitchell (1837), Jones (1838), and Soule (1855). Jones stated that:

. . . here in Illinois there are various portions of the state which have drawn the attention of immigrants and speculators. Rock River is the present attraction. Thither are flocking such hosts of immigrants as must soon densely people the wild and beautiful tracts of country bordering that stream (Jones 1838:165).

Economic, technological, and political factors all combined to make the Rock River Valley, as with the majority of northern Illinois, experience a dramatic land rush and sales boom peaking in 1836-37. Dayton, Cleveland, Portland, Lyndon, and Union Grove, all communities in or immediately outside of the project area, were platted at this time (Pease 1918:176). It was shortly after this period that county governments were organized.

Prior to 1830, most of the emigration to Illinois came via the Ohio River Valley and funneled people into the southern portion of the state. A large percentage of these early settlers were originally from the Upland South and tended to settle along major river valleys and timber regions of the southern end of the state (Glassie 1968; Buley 1951). The early non-French settlers within the Rock River Valley prior to 1830 were originally from the southern portion of the state, having either migrated up the river or overland via the Sangamon Valley.

The 1830's saw a drastic change in these migration patterns. The construction of the Erie Canal was responsible for a very drastic shift in the migration and demographic patterns of the State of Illinois. The canal, completed in 1825, stretched from Albany on the Hudson River to Lake Erie at Buffalo. The completion of the canal, coinciding with the advent of steam navigation on

the Great Lakes, provided a new migration path to the Old Northwest (Howard 1972:152-3). The Black Hawk War had pushed back the northward migration of southerners into the Rock River country, and Chicago boomed in the early 1830's at the expense of St. Louis and Shawneetown.

With the completion of the Erie Canal, the majority of immigrants into the Rock River country were originally from either the northeastern United States or Europe. A major economic depression in 1837 brought on extremely hard times and tight money on the East Coast; especially affected were the Mid-Atlantic laborers who tended to migrate west in large numbers (Howard 1972:155). This new wave of northern "Yankees" has lead some authors to view northern Illinois as a "New England Extended" (Larson 1975). He also pointed out the importance of European immigration, especially German, to the settlement of the Rock River country (Ogle County). The analysis of place names within the project area also points to the original source area of many immigrants; for an example, Erie, Illinois, was named after Erie, New York.

This changing migration pattern was responsible for a drastic north-south dichotomy in the cultural development of Illinois that is still evident today. Pease (1918:173) stated that "this advance in population northward was one of the most significant facts in the history of the decade

from 1830 to 1840." This changing migration pattern reflects a shift in the emphasis from a north-south corridor (i.e., the river systems) to an east-west corridor (i.e., the Erie Canal and the National Road). This pattern remained dominant throughout the 19th century, especially with the development of the railroad industry. The archaeological record should reflect this dichotomy, with slightly different material culture remains being associated with the "southern" and "northern" populations. The Rock River region in this period, ca. 1820 to 1850, would be an excellent place to test this hypothesis.

Due to the success of internal improvements in other portions of the country, Illinois was busily investing in her own internal improvements. Although Illinois had financial problems after the economic crash of 1837, many of the internal improvements started by the state were finished by private investors. Of these the Illinois and Michigan Canal, finished in 1848, was the most significant. This canal opened river traffic between the Great Lakes and the Illinois River.

Early belief in the navigability of the Rock River encouraged speculation on the possible construction of a canal and lock system. In the early years, lumber and mining industries were responsible for the development of keel and flat boat traffic on the lower Rock River, but it

was not until 1836 that the steamboat Frontier made it as far upriver as Dixon's ferry, emphasizing the reality of a navigable Rock River. During the 1830's, a proposal was drafted to build a canal from Milwaukee to the Rock River headwaters, which would have opened trade between the Great Lakes and the Mississippi River Valley (Mitchell 1837). In 1841, the Rock River Navigation Company, also known as the Rock River and Mississippi Steam Navigation Company, incorporated to improve navigation on the Rock River with a series of locks and dams at the lower rapids at Rock Island, the upper rapids at Lyndon, and at Rockford in Winnebago County (Larson 1940:342). As late as 1866, a federal survey to improve the navigability of the Rock River was conducted but its recommendation for 56 locks costing over \$14 million was never implemented (Larson 1940).

Large landholders and ranchers were important in northern and central Illinois. Ranching became a big business associated with the Illinois upland prairie and major riverine bottoms. The bottoms, as near Erie, became a prime area to breed, graze, and feed local beef stock (Bogue 1959:48). Soule (1855:2) also stated that "there is no portion of the State of Illinois so well adapted to the raising of stock as the valley and bottoms of the Rock River and its tributaries." Ranching requires extensive

land resources and holdings tended to be large, with the farmer and rancher using only a small portion of the land efficiently. One of the major problems between farmers and ranchers was that of keeping the roaming livestock out of farmers' cash crops. In 1848, the Illinois Supreme Court sanctioned "the common practice of using the prairies as a free grazing ground" (Bogue 1959:117). The farmer had to fence his crops for his own protection. Early attempts to use osage orange trees for hedge rows that were "horse high, hog tight, and bull strong" proved discouraging (Howard 1972:264). Not until barbed wire was perfected and manufactured by Joseph Glidden in DeKalb in 1874 was the problem of fencing a timberless area solved (Howard 1972:359). The Rock River Valley was an ideal location for cattle grazing, but the extent of the Rock River Valley's participation in the "cattle industry" is questionable.

Farm experimentation progressed slowly, but advances in agricultural technology made during this time were important to the settlement of the prairie. One of the more significant advances was the perfection of the steel moldboard plow by John Deere in 1837. In 1847 Deere moved to Sylvan Slough near Moline to take advantage of better transportation and water power on the lower Rock and Mississippi Rivers. A few initial attempts at prairie farming were made by communal groups such as the Jasonists

at Bishop Hill (ca. 1846-1860). It was through cooperative efforts of the well-organized community of settlers that problems associated with prairie farming, not overcome by the small family unit, were solved (Bogue 1959:74). Bogue (1959) also pointed out that it was only these communal groups and large-scale landlords who could invest sufficient amounts of capital and time to make significant contributions toward solving the problems of prairie farming. The prairie regions of Illinois were slow to develop and received increased competition from some of the more heavily forested regions of northern Illinois such as the Fox and Rock River Valleys (Carlson 1951:73).

Speculation in Illinois farmland by Eastern investors was common. Bogue (1959:37) pointed out that "the great evil of Illinois was due to speculation." J. W. Scroggs, editor of the Central Illinois Gazette, argued that there "was an eyesore of wide strips of unoccupied land that now intervenes between our scattered but multiplying farmhouses, land which would long since have been settled had they not been owned by selfish non-resident speculators, who hold them back from the market" (Bogue 1959:37). Many investors bought large tracts of both desirable and undesirable land at this time for possible later development. Much of this land, especially the undesirable bottomland, became quite valuable during the next period.

Many interesting maps dating to this period were located by our research. One of these, Lucius Lyon's Map of the Boundary Line Between Ceded and Unceded Lands, 1829, shows most of the research universe. The only cultural features represented on the map were a tavern and ferry crossing at the junction of the Rock River and Lewistown Road near Prophetstown (Tucker 1942:plate LII). Chandler's (1829) Map of the Lead Mines of Upper Mississippi is very similar to Lyon's map and shows the ferry and tavern as well (Tucker 1942:plate LXXVIII).

The Sketch of the Indian Country and the Fever River Lead Mine District, 1827 (Tucker 1942:plate LIII) shows a Winnebago village, probably Prophet's Town, approximately 40 miles from the mouth of the Rock River. No Euro-American settlements or farmsteads were included on this map.

Another interesting and little-known map of the region is Charles Eames' (1833) Map of the Road from Falls of the Plum River to Rock River at the Old Prophet's Village (Birk 1973). This map is similar to both Lyon's and Chandler's and shows the Rock River and Lewistown Road near Prophetstown. Other than those sites recorded from the U.S. Government Land Survey plats, no sites within the project area were located on any of these early map resources.

This period can be summarized as a time of initial Euro-American settlement and agricultural utilization of the project area, with settlement centering on the transportation network of the Rock River. Many sites dating to this period were recorded through our research; the most interesting and productive documentary sources for the period were the U.S. Government Land Survey plats which contained detailed site-specific information (see Appendix I; sites #141 through 219 pertain to this early period of occupation).

Analysis of the Early 19th-Century Settlement  
Pattern, Ca. 1838

The lower Rock River Valley was being settled by immigrants at the expense of other nearby drainages such as the Green River to the south. Soule (1855:2) stated that the Rock River country was noted as being "one of the most beautiful portions of this rich and fruitful state . . . and has a rapid and beautiful stream of water called the Rock River excelling in clearness and purity any of the mountain streams of New England." Within the lower Rock River Valley in 1838, there does not appear to have been any major settlement between Cleveland and the Rock Island area. The majority of the settlement appears to have been located within the wide expanse of floodplain created by the pre-Holocene channel of the Mississippi River near

TABLE II

FUNCTIONAL DISTRIBUTION OF HISTORIC SITES  
LOCATED ON THE U.S. GOVERNMENT LAND  
SURVEY PLATS (CA. 1838)

Function	Number
Fields	29
Towns/Hamlets <sup>1</sup>	9
Mills	1
Farmsteads <sup>2</sup>	52
Ferry Crossings <sup>3</sup>	5
Quarry (Sandstone)	1
Sod Fence	1
Trail	2
House	20
Church <sup>4</sup>	1

1. These included Washington Street Settlement, Crandall's Crossing, Portland, Prophetstown, Lyndon, Sandtown, Cleveland, Penny's Crossing, and one unnamed community.

2. Farmstead is here defined as being both a field and house.

3. These included Crandall's ferry, Penny's ferry, the Portland ferry, the Cleveland ferry, and an unnamed ferry.

4. This was a Presbyterian church.

Erie. Large, well-developed terraces, with a wide expanse of floodplain at this location, lessened the risk associated with annual flooding. This was an ideal location to establish extensive agricultural land use patterns, especially associated with the grazing of cattle in the bottoms, and agricultural plots on the terraces, natural levees and bluff crests (Butzer 1977; Meyer 1956).

Farmstead Locations. The positioning of farmsteads within the valley did not occur in a haphazard manner scattered randomly across the landscape. Smith (1979) formulated a settlement model that was based on historic settlement along the lower Illinois River Valley within Pike and Scott Counties. His conclusions were that "hollows containing habitable Intermediate Zone locations . . . were the primary focus of early farmsteading" (Smith 1979:10). The locational advantages of such "Intermediate Zones" along with a lack of the proper technology (steel moldboard plow) and resources (oxen and capital) to break the thick prairie sod, made such hollows favored habitation sites. The severity of the climate and the misconception of the prairie fertility and its unhealthfulness also were responsible for a delayed prairie settlement. The vision of the pioneer hacking his homestead out of the forested landscape has been perpetuated by historians and artists alike.

Although the presence of prairie fertility was known at a rather early date (Birkbeck 1818), there was a general aversion to prairie farmstead locations during these early years of settlement. Unlike the "Frontier Ideal" model, settlers were not selecting a completely wooded environment. The advantages of a wooded environment (i.e., timber and food resources) and a grass-covered environment (i.e., ease of clearing land, fertility of soil) could both be exploited near a prairie/timber ecotone. The major environmental constraint influencing the location of farmsteads was that they be located near this ecotone.

Other than environmental constraints on farmstead location, cultural constraints were also influencing the position of the farmstead on the landscape. A key factor influencing locational preference was the farmstead's proximity to a transportation network. Even in the earliest stages of frontier development, unlike the "Frontier Ideal" model envisions it, very few early settlers were self-sufficient and independent of trade with the outside world.

Network Locations. Two types of transportation networks were recognized in the Rock River Valley at this time (inter- and intraregional) (Figure 4). The major interregional network consisted of the Rock River and its association with the Mississippi River. Major market

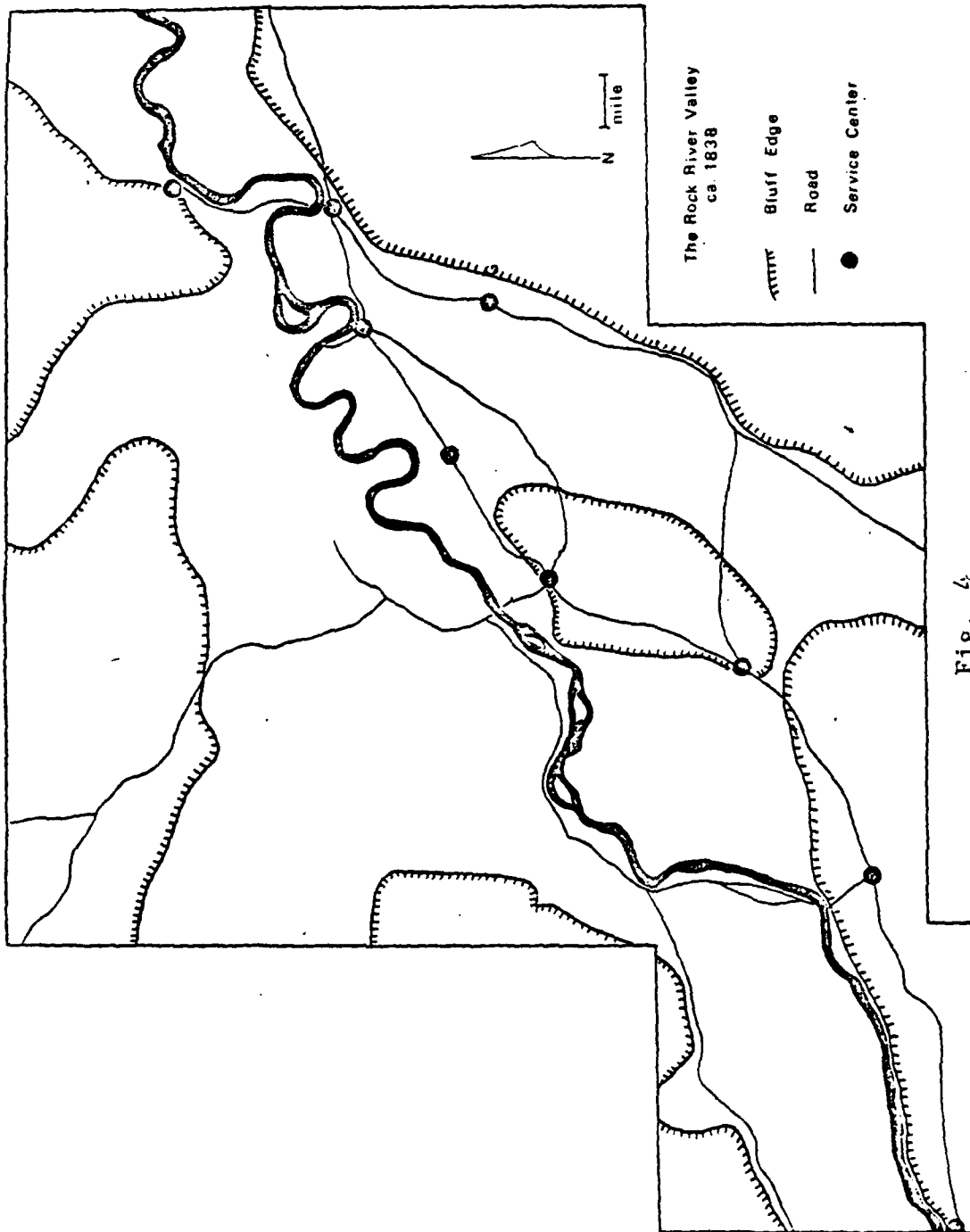


Fig. 4.

The Rock River Valley from Cleveland to Lyndon, circa 1838

outlets were located at St. Louis and New Orleans. Early settlement within Illinois tended to cluster along these major navigable river corridors reflecting the importance of the riverine transportational system. McManis (1964:23) has pointed out that one of the key reasons that the prairie environs were avoided was due to the lack of a natural efficient transportational network.

Where the river system did not provide an efficient transportational network between regions, interregional road networks developed. In the project area these included: (1) the Albany to Crandall's Ferry Road; (2) the Lewiston Road, which extended from the Spoon River through the Rock River country at Prophetstown, to Galena (Birk 1973:187-97); and (3) the Fulton to Crandall's Ferry Road. Settlement along these interregional road networks appears to have been relatively sparse except at the terminal ends, at junctions with other networks, or ecotonal borders. It is hypothesized that settlements would occur spaced at one "journey-day" distance along these interregional corridors.

An intraregional road network developed in the Rock River Valley which connected farmsteads with local facilities, such as the church, post office, blacksmith, and ferry crossing. The intraregional network consisted of a set of two approximately parallel roads, running along the bluff edge (either at the bluff base or bluff crest) and/or

river edge. At regular intervals of approximately 6 1/2 miles, a series of roads running perpendicular to the river valley connected the bluff edge road to the river edge and ferry crossing. It appears that the bluff road did not follow the bluff base but roughly followed the prairie/timber ecotone. This intraregional network appears as a circular network which is distinctively different from the post-governmental land survey road network so characteristic of the Illinois landscape. Unlike latter 19th-century farmstead locations, which were constrained by a rectangular grid pattern of intraregional roads following section lines, these pre-survey government farmstead locations are constrained by a circular network more reflective of the physical needs and limitations of the early 19th-century settlers. It was along the early established intraregional networks that the initial settlements were located.

Service Center Locations. Three hierarchical classes of sites were defined for the project area for the year 1838. The lowest order consisted of the farmstead or isolated homestead. The highest order consisted of small, "river-port" villages. These villages appear to have been clustered together at opposite ends of the project area. Cleveland was located closest to the mouth of the Rock River, while the other three were clustered towards the extreme upriver end of the project. The close clustering

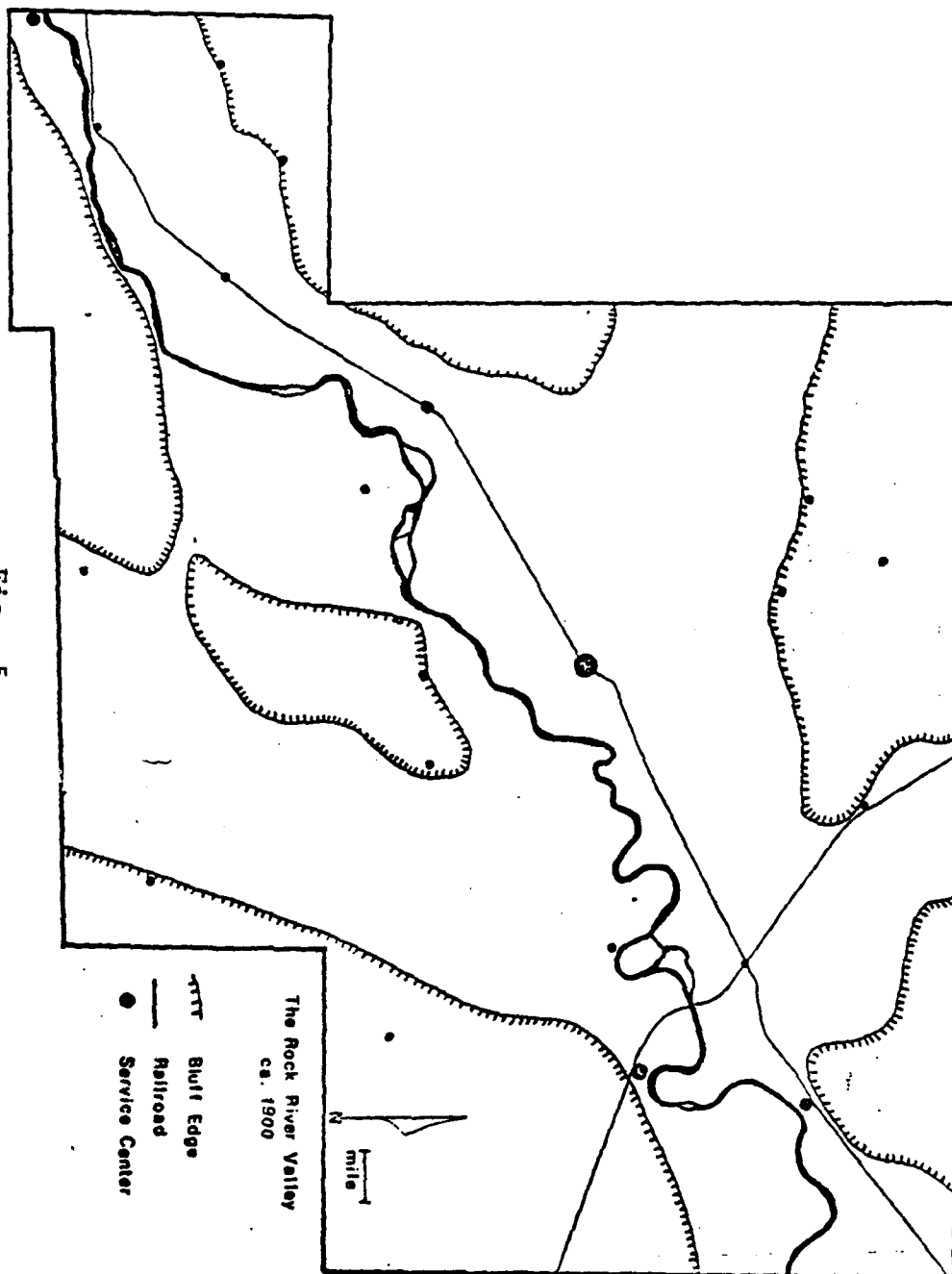
of these three small villages at the upstream end of the project area was due to the junction of two interregional transportational networks, the Rock River and the Lewistown Road.

Located between these "river-port" towns were a series of middle-order communities or hamlets. Trewartha (1940:37-8) defined a hamlet as "an agglomeration of people together with their residences and work units." These "service centers" functioned as trade, political, religious, and social centers for farmers living in the open countryside. A total of five service centers were located within the project area for the period ca. 1838 (Figure 4). These were defined on the presence of a church, school, ferry crossing, post office, or other recognizable service function and an associated clustering of homesteads. Two early services responsible for the organization of these communities were ferry crossings and post offices. Trewartha (1940) has noted the early importance of the fourth class post office in the formation of these frontier service centers. In at least two examples in the project area, during these early years of settlement, the post office was located in the ferry operator's home (Crandall's and Penny's Ferry Crossings). Other services such as blacksmithing, general stores, mills, and professional services were offered by these amorphous service centers.

All but one of these service centers and river port towns (Washington Street Settlement) were aligned lineally along the Rock River Valley, again reflecting the importance of the riverine transportation system. All but one of these communities (Lyndon) were located on the southeast side of the river, as were the highest density of farmsteads. This possibly reflects the effect of the Rock River as a barrier to travel to the northwest. The only community located on the northwest side of the river was the village of Lyndon, which was located on the inter-regional Lewistown Road.

Trewartha (1940:38) claims that the service centers currently present in the Driftless Hill Region of Northwestern Illinois, were "relatively contemporaneous with the initial settlement of the area." By comparing the location of later 19th-century hamlet and village locations with the earlier 19th-century locations as represented on the U.S. Government Land Survey plats, it is clear that preferences for hamlet locations have changed through time (Figure 5). From the initial analysis it would appear that this change in locational preference reflected an associated change in emphasis on transportational networks (from a river to rail-oriented system). But it appears that the abandonment of some of the early service centers, such as Crandall's and Penny's Ferry Crossings, occurred approximately 15 to 20

Fig. 5  
The Rock River Valley from Cleveland to Lyndon, circa 1900



years before the railroad lines were established (Chase 1964, Gronner n.d.).

Why, then, was there a changing preference for some of these hamlet locations? One possible explanation is that during these initial years of settlement, the locus of the ferry crossing, and the man associated with that position, was of importance, reflecting the nature of the river as a barrier to travel; thus, service centers developed around these early river crossings. Local political and social stratification had not had a chance to develop, with the early settlements being in a relatively dynamic state. It apparently took a few years for the local population to become stabilized (static), with well-developed social, political, and economic stratification. The movement of these settlements away from the initial centers to new locations oriented around new individuals and locations of importance seems to have occurred by 1850-55, approximately 10 to 15 years after the initial settlement of the area.

The average distance between these service centers and riverport villages was approximately 3.8 miles, while the average size of the service area was 26.5 square miles. Brush and Bracey (1955:568) noted two hierarchal classes of settlement clusters within the Driftless Region of 20th-century Southwest Wisconsin. The lower ranked hamlets were spaced at intervals of 8 to 10 miles with a service area of

32 square miles. The Rock River hamlets appear to be spaced relatively closer together reflecting the less efficient transportation system of the early 19th century. As Beardsley et al. (1956:151-2) noted, the key factor in agricultural societies influencing community settlement patterns is the "degree of mobility" of that society. This contrasts with the "productivity of the subsistence system" which is chiefly the limiting factor for non-agricultural societies. The limiting factor influencing the spacing of these early 19th-century settlements appears to be the "journey-hour" and is reflective of the less efficient intraregional transportation system in use during the early 1800's (i.e., the inefficiency of horse travel and the poor road conditions).

#### Stage IV (1855-1870): Transitional Period

This stage was marked by a major change in the transportation system in Illinois, a change that completely altered settlement patterns. There were fewer than 200 miles of railroad track in the state in 1850 but by 1855 over 2,005 miles of track had been laid, mainly by the growing Illinois Central Railroad Company. The initial years of this period saw the rapid removal of prairie land from the land market due to railroad construction, increased speculation along railroad lines, and an increased

agricultural interest in the prairies, due mainly to technological advances in farming. A marked settlement shift away from riverine areas into well-drained upland prairies (such as the Grand Prairie) also took place at this time.

During the majority of this period, railroad track was actually laid within the project area. Just prior to, and during, the Civil War speculation on railroad construction was rampant; many an individual in Rock Island, Henry, and Whiteside Counties mortgaged his farm, only to see the company he had invested in go bankrupt. In Newton Township, the arrival of the Comanche, Albany, and Mendota Railroad "excited the farmers to a high pitch and visions of convenient markets, greatly enhanced values of land, and other advantages, passed before them" (Bent 1877:333-40). Farmers mortgaged their property, the roadbed was graded and then the company failed; a similar fate was in store for inhabitants of Erie Township in 1857-58. The Sterling and Rock Island Railroad planned a line through Whiteside County; the roadbed was graded and then this company also failed (Bent 1877:153-4). It was not until 1869 that the Rockford, Rock Island, and St. Louis Railroad Company established a rail line through the project area passing through the villages of Lyndon and Erie (Bent 1877:153-4). The next line to reach the project area was the Chicago,

Burlington, and Quincy Railroad which passed through the community of Prophetstown and intersected the Rockford, Rock Island, and St. Louis line at Denrock in 1871 (Bent 1877:363-73).

Cattle ranching developed into big business during this period. Texas longhorns were hauled by river and railroad to central Illinois, where they were fattened and then sent to eastern markets. Ranching required extensive land utilization, based on livestock pasturing in the woodlands, prairies, and river bottoms. The drier terraces, bluff tops, and natural levees were used for small agricultural plots. Cattle became the main "cash crop" during these years.

Agriculture remained on a level slightly above subsistence farming until the later portions of the period, although there was experimentation with different crops, livestock, machinery, and fencing. Although agricultural productivity of the prairies was realized by a few individuals at any early date (Birkbeck 1818), it was not until this period that settlement of the dry upland prairie regions increased in a "ring-like" progression around timber groves onto the prairie landscape.

Laws that had affected the settlement pattern and distribution of farmsteads up to this time included:

1. The Pre-emptive Act of 1841: Allowed for the purchase of up to 160 acres of land at \$1.25 per acre by squatters who had improved land prior to any government survey;
2. The Graduation Act of 1854: Stated that unsold, less desirable land would decrease in price at a fixed rate per year until it was sold; this helped to fill in the cultural landscape; and
3. The Homestead Act of 1862: Increased settlement by allowing the purchase of land at nominal prices. This act had little affect on Illinois but did bring many settlers to the Great Plains.

The Civil War had a drastic effect on the economy and demography of the project area. Bent (1877) was proud to write about the many able-bodied men in the project area who volunteered. After the war, the northward movement of displaced southerners (Blacks and poor whites) began, but it was not until the following stage that this new northward migration peaked. This migration had the greatest impact on northern industrial communities, such as Rock Island, Milan, and Moline.

This period can be summarized by these major developments: first, establishment of railroads in Illinois and changes in market and transportation systems; and second, large-scale experimentation with prairie farming methods

that came with the initial movement of settlers into the dry upland prairie regions. Many sites from this period were recorded through the analysis of the mid- to late-19th-century plat and atlas resources pertaining to the project area (Ogle 1893a, b; Warner and Beers 1872, 1875; Holmes 1860; Thompson and Everts 1868).

Stage V (1870-1900): Filling in the  
Cultural Landscape

By the late 19th century, the cultural landscape was completely "filled in" and recognizable in its current form; over 90% of the physical landscape was being intensively utilized. During this period the railroad industry became firmly established in the project area, and great advances were made in farming practices, and major changes occurred in the economic pattern. It was a time of fluctuating economic cycles with severe depressions in both 1873 and 1893. Both mining and ceramic industries, discussed in more detail below, played an active role in the economy of the project area.

The two railroad lines constructed in the project area at the beginning of this period opened new markets in agricultural and manufactured goods, allowed increased farm mechanization with an associated increase in farm acreage, and altered settlement patterns. Once the railroads finally arrived, their unscrupulous activities increased

interest in the navigability of the Rock River, but by this time it was too late; river travel for the Rock River Valley was a thing of the past. The establishment of the railroad lines caused a shift away from the river systems by the 1870's, and it was at this time that many of the small hamlets located along the railroad lines were established, including Barstow, Osborn, Hillsdale, Joslin, Fenton, Pratt, and Denrock.

A major change in land use was the shift from an extensive to intensive pattern, with the disappearance of ranching from the rural Illinois landscape. Rising land values, due in part to technological advances in farming that increased productivity, along with the reclamation of wet prairie lands and increased western competition helped force the cattle industry out of Illinois. New and better breeds of cattle were introduced and the ranching industry was transformed into a steer feeding activity carried on by farmers, not ranchers (Bogue 1957:68). Features of the cultural landscape demonstrate this changing land use pattern; for example, many late 19th-, early 20th-century brick silos with plastered brick dome roofs are located in the Hillsdale/Erie vicinity. These were, and still are, used for silage storage for cattle feeding and reflect the change from extensive to intensive land utilization.

Manufacture of ceramic drainage tile was perfected at this time and was followed by the passage of the Farm Drainage Act and The Drainage and Levee Act of 1879. These acts promoted the organization of drainage districts with the power to levy taxes to finance construction of dredge ditches and laying of large amounts of tile. By 1880 to 1900, a majority of the wet prairie land in Illinois had been tiled. Prior to this time, ceramic tile was expensive and had a limited use, but no longer was experimentation with drainage limited to rich landowners. The majority of the wet bottom lands, such as the Meredosia Slough, were drained and utilized, and many small river bank levees were constructed. Worthen and Shaw noted that in Whiteside County, residents were:

. . . reclaiming their swamp lands, by an efficient system of ditching, faster than Nature ever dreamed of doing. Thirteen miles of big ditch are now finished and under contract. Already hundreds of acres of land after being drained, have advanced in value from a few cents to many dollars per acre in value. . . (1873:144).

An associated activity that quickly died out was the exploitation of large peat bogs such as the "Cat-Tail Slough" (Meredosia Slough) by such companies as the Union Grove Peat Manufacturing Company (Worthen and Shaw 1873: 164).

Reclamation of hundreds of acres of wet prairie land, the rise of land prices, and increased farm mechanization led to a new level of intensive land use. Previously, overreliance on a single crop, such as wheat, was common, but after the Civil War a wider use of other crops (corn and oats) began. Farm practices diversified during the later years of the 19th century, and, due to low and fluctuating grain prices, farmers started converting their entire crop (corn, oats, or wheat) into pork or beef production. Depending on the market in any given year, corn, oats, beef, or pork became the main cash crop. The introduction of rail refrigeration units contributed to this changing livestock raising pattern.

The average farm size also changed and two trends emerged: (1) the consolidation of many small farms into 100- to 160-acre units, and (2) the break-up of large 500- to 1,000-acre tracts of land into smaller units, especially those owned by large cattle ranchers. This resulted in a more uniform farm size of approximately 130 acres (Bogue 1959:150). By 1900 over 40% of Illinois farmers were tenant farmers, largely due to the rapid rise of land values and bad growing seasons such as in 1877 and 1878 (Carlson 1951:193).

Changing migration routes were also evident. Due to extremely unstable conditions in the South after the Civil

War, a large number of Blacks and poor white farmers migrated to the north. These migrations peaked during the 1870's and had a more drastic effect on industrial and urban centers, such as at Rock Island and Moline, than on the rural areas.

Coal mining activities became an important early industry in the western part of the project area. Coal fields were indicated on many of the U.S. government land survey plats and on the 1860 Map of Henry County and 1868 Map of Rock Island County. Coal mining activities did not begin until the mid-19th century and reached their peak in the period ca. 1870-90.

Only the westernmost edge of the project area was affected by coal mining activities. The area to the south and west of Cleveland is underlaid with many coal seams, one of which is the Cleveland Coal Seam (Worthen and Shaw 1873). Worthen and Shaw (1873) discussed the coal reserves of this region and gave information on individual mines. Aldrich, Johnson, Kent, Minersville, Hampton, and Cleveland mines were the most important and all are outside of the research area. The main mining activity in the Cleveland region was strip mining. Towards the west, near Coal Valley and Carbon Cliff, coal was produced through slant drift and shaft mines. Several shafts were located just outside the project area, but no coal mines or associated

sites were located within it. A pedestrian survey of the Carbon Cliff area for mine-related activity areas such as miners' housing units is recommended for future research.

Directly associated with these coal resources was an extremely fine grade of "under clays." These clay resources began to attract potters after the coal resources began to expire. Worthen and Shaw (1873:201) stated that "great abundance of the usual drift clays can everywhere be obtained . . . [and] burn into a good article of common brick." The Carbon Cliff mines were depleted by 1873 and a large ceramic industry began to develop. The Argille Pottery Works began production circa 1860 and produced ordinary crockery and pottery ware, drain tile, coarse tableware, and terra cotta. By 1873 the company had converted to producing only drainage tile. These pottery works played a major role in the production of drainage tile used in wet prairie regions of the Rock River Valley in the period 1870 to 1890. The town of Carbon Cliff eventually became a "company town," and employed over 80 individuals and distributed their goods over northern Illinois and Iowa. The pottery works were not located within the project area, but further research involving surveys of the region around Carbon Cliff should recognize the possibility of locating clay procurement areas and workers' housing.

This stage was dominated by the shift from a river- to rail-oriented economy. The adaptation of grain and livestock economy to a new level of market prices, the declining importance of both small- and large-farm units in favor of more moderate-sized holdings, progress in wet land drainage, and changing migration patterns all combined to make this a very dramatic period in the project area. Many sites dating to this period were located and are listed in the appendix.

Stage VI (1900-1914): Pre-World  
War I Prosperity

This period is represented by post, Spanish-American War nationalism and pre-World War I prosperity. The majority of new immigrants during this time came from southern Europe and settled in the major urban and industrial areas such as Chicago, St. Louis, and Rock Island. Silvis, Moline, and East Moline, also received an influx of southern European workers. Silvis, located in the far western end of the project area, became the railroad locomotive repair shop for the Rock Island Lines in 1903. The 20th century began a new era of growth and prosperity within the project area.

### Summary

Many scholars have stressed the importance of understanding synchronic systems prior to making diachronic interpretations. Through the analysis of these early 19th-century plats, we were able to view a synchronic pre-survey settlement system! The most important portion of the historic Rock River survey was in the analysis of this pre-survey Illinois landscape, a cultural landscape that was not structured by the familiar checkerboard pattern of the Township/Range grid system. Physical and environmental constraints, such as prairie/timber ecotone and terrace requirements, have structured the preferred farmstead locations of early 19th-century settlers within the Rock River Valley. Cultural constraints, such as the proximity of the farmstead to early established intraregional networks, also structured the location of farmsteads on the cultural landscape.

### V. RECOMMENDATIONS AND CONCLUSIONS

The documentary research and collector interviews in the Rock River survey area have resulted in formulation of specific recommendations regarding future supplementary research. These research activities will be required before we are confident we have a more complete picture of

the cultural resources that are present than now available. Such a complete picture is essential to fulfilling resource management goals. Our recommendations are the following:

1. Many institutions with documentary material pertinent to the area were visited, but some could not be contacted due to scheduling problems. The principal omission was the library of the Putnam Museum in Davenport. Due to technicalities raised by the Secretary of the Illinois Archaeological Survey, we were refused use of these files within the time period of the contract; further research should include assessment of these files;

2. To further complete the historic site data base, a search for the 1860 series map of Whiteside County, similar to those located for Henry County (Holmes 1860) and Rock Island County (Thompson and Everts 1868), should be undertaken. It is possible that this resource does not exist; and

3. Due to many factors, such as an incomplete coverage of the project area by artifact collectors, and biases in the documentary evidence favoring later period historic sites, the present documentary survey has certainly not located all of the sites within the project area. Persons involved in planning construction activities along the Rock River must realize that the absence of known sites in a particular area does not mean that no site exists

there. Conversely, documentary reports describing a site location, or collectors' reports of site presence, are not definite proof of a site's existence. Ground truth verification of site presence by pedestrian survey will be necessary before a final assessment of cultural resources in the project area can be made.

### Conclusions

This study has examined documentary and informant site locational data for a short segment of the Rock River Valley. In the process of this investigation and synthesis of past research in the project area a cultural framework for the prehistoric and historic resources was developed.

The data base developed for this project represents a very biased sample. For the prehistoric sites, the sample is biased by the fact that artifact collectors' territories did not overlap, leaving gaps in the project area where no sites were reported. The reliability of the site data, and the types of sites collected, also varied greatly between collectors. As for the historic data base, there is a large amount of documentary material for the latter periods, but there appears there was little documentary material for site-specific information associated with early historic sites. This has resulted in a wealth of site-specific data associated with the mid- to late-19th century, but very

little with the early 19th- or 18th-century sites.

Finally, sites represented in this study must be considered as elements of a greater settlement system incorporating not only the bottoms of the Rock River but the bluff edges, secondary valleys, and uplands. This study has dealt with only one major physiographic region, and to get a more holistic view of the settlement system, both prehistoric and historic, a wider view of the entire Rock River Valley and its environs needs to be undertaken.

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APPENDIX I  
DOCUMENTARY EVIDENCE FOR MILL SITES

Mills functioned as centers of activity on the early frontier due to the necessary service they offered. During the early years, settlers had to travel long distances to have their grain ground. Bent (1877:341-62) claims that early Whiteside County settlers had to travel to mills as far as Ellisville on the Spoon River in Fulton County. The only alternative was to use hand-operated querns. Mills were important in the development of early frontier life because they also sawed lumber for constructional purposes. Until the appearance of saw mills, building materials consisted of hand-hewn and sawn material. As a consequence, the majority of the early domestic structures in the regions were "log cabins." In the entire project area there were only three sites with "frame" houses associated with them.

The 1850 Products of Industry Census claims that there were not any mills located in Henry County at that time. In Rock Island County there were three sawmills (all water powered), and only two sawmills (one water and one horse powered) in Whiteside County. The exact locations of these mills is unknown. Anderson (1980) claimed that there were very few mills actually located within the project

area, and that the most were located up secondary valleys of the Rock River and not on its floodplain. It appears that we have located major mills both on the river edge and floodplain within the project area. Only one mill was represented on the 1830's land survey plats for the entire research area (Site #142). This sawmill was associated with a Rock River ferry crossing and road to Portland, and represented a very early and significant site for the project area. Bent (1877:267-268) states that:

Ray, Harmon, Spencer, and Dix contracted to extend the mill race at Lyndon from a point on the river just below the town, under the bluffs and have it enter the river below Portland, on the north, near Squaw Point or Portland Ferry. The intention was to put up mills and manufacturing establishments at the outlet. The race had been excavated in 1838 and a saw mill upon a large and substantial plan, erected at which 200 feet of hard wood lumber had been sawed but the race was not deep enough to be of any practical use. . . .

This site that Bent talks about possibly refers to the same sawmill as represented on the early 19th-century plats.

Other references to mill sites within the project area were located. The following is a list of these early mill sites:

1. Lucius Wells Mill (Heagy n.d.). The exact location of this mill is unknown. It was within Rock Island County and may be the mill represented on the 1830's land survey plats on the

Mississippi River north of the mouth of the Rock.

2. Norton Mill (Heagy n.d.). This mill was built by William Luce. It was a steam-powered saw and grist mill that was also known as the "Bluff Mills." The exact location of this mill is unknown but it is believed to be in the Hampton area of Rock Island County.
3. Talcott Mill (Holmes 1860). Located just outside the project area in Section 24 of Hanna Township, this mill was associated with Mr. Talcott's ferry crossing and was owned by J. C. Townley. (Site #625)
4. Erastus Nichols Mill (Bent 1877:363-373). This mill was in operation around 1840. Located on Coon Creek within Prophetstown Township, this site is outside the project area. No exact location of this site is known.
5. Erie Mills (Bent 1877:153-154). A steam-powered saw mill (built ca. 1855), a flour mill (built ca. 1868), and a grist mill (built ca. 1871) were all located within the town limits of Erie. The exact location of these sites is unknown.
6. Harmon's Mill (Bent 1877:193-204). This was a saw mill built in the fall of 1844 by a D. and A. Wood. Although it is known that the site was

located on Rock Creek, the exact location of this site is unknown.

7. Rock Creek Mills (Worthen and Shaw 1873:140-166). Located on Rock Creek in 1873 were three to four "good mills." The exact location of these mills is unknown.
8. Elkhorn Creek Mills (Worthen and Shaw 1873:140-166). Located on this creek were two to three mills, the exact location of which is unknown.
9. Buffalo Creek Mills (Worthen and Shaw 1873:140-166). Located on this creek was one early mill, the location of which is unknown. The mills located on Rock, Elkhorn, and Buffalo Creeks may all be located outside of the project area.
10. Kempster Mill (Bent 1877:341-362, Ogle 1893). Located within the Dutch bottoms in Section 34 of Portland Township, this sawmill was associated with the small hamlet of Kempsterville. Built in 1855-56 this mill had a double rotary saw powered by a Gates steam engine from Chicago. This mill was started by William and Ephraim Kempster and Jacob Butzer. Supposedly in 1872 a new mill was added with new saws and a turning lathe. The mill was producing 600,000 board feet of lumber per year. This mill does not

appear represented on the 1872 plat. (Site #427)

11. Butzer Mill (Warner and Beers 1875). This steam-powered saw mill was located within Section 4 of Phenix Township. It appears on the property of a Mr. J. F. Butzer. See Figure (Site #402)
12. Lyndon Mills (Bent 1877:283-286). Lyndon, as Bent states, was well known for its water power potential. He says that "its immense water power, if properly utilized, as it undoubtedly soon will be, cannot fail of again placing it in the front rank." Some of the early companies at Lyndon to utilize this water power potential were:
  - a. The Lyndon Hydraulic Manufacturing Company (1872). This company built a dam across the river at the head of the rapids just north of town.
  - b. The Paper Manufacturing Mill (1873).
  - c. Victoria Flouring Mill (1873).
13. Cleveland Mill (Kett 1877:531-2). This mill consisted of a water-powered sawmill built ca. 1869-70 on the banks of the Rock River by the Cleveland Hydraulic Company. The exact location of this mill is unknown. Assuming it was built

on the south side of the river, it would be outside the project area.

APPENDIX II  
SUMMARY OF INFORMANT CONTACTS

Ferrel Anderson  
Davenport, Iowa

Ferrel is the president of the local archaeological society and has conducted surveys in the Rock River area. He is very knowledgeable about the local prehistory and general history of the area.

James Baker  
Moline, Illinois

A local collector with an extensive collection from the Rock River area. Provenience data of artifacts is good.

Gordon Bleitz  
Erie, Illinois

Gordon Bleitz is an artifact collector in the Erie area. He was not available to schedule an appointment.

Bob Boss  
Hillsdale, Illinois

Bob Boss is an artifact collector in the Hillsdale area. The provenience data of his artifacts is moderate.

Marcel Dhondt

East Moline, Illinois

Marcel Dhondt was contacted, but his collection territory is restricted to the mouth of the Rock River; this is beyond our research area.

Arnold Frank

Prophetstown, Illinois

Arnold Frank was recommended by Ronald Jamieson as a collector in the Prophetstown area. However, time did not permit correspondence.

Dr. Curt Gronner  
Morrison, Illinois

Curt Gronner is a local historical society member and collector in the Morrison area. He is knowledgeable of local prehistory and possesses an extensive and well-documented collection. His knowledge of the local history of the region was also helpful.

Janice Hall

Davenport, Iowa

Curator at the Putnam museum. She was helpful in directing us to bibliographical sources for the Rock River area.

Burton D. Hansen  
Moline, Illinois

Burton Hansen has collected the Rock River Valley extensively, but had previously released all locational data to IAS surveyors. He is knowledgeable about local prehistory.

Elaine Bluhm Harold  
Charleston, South Carolina

Elaine Bluhm Harold had previously worked for the IAS and Davenport Museum, but since then has left the area. She was not contacted.

Carol Holly  
Hillside, Illinois

Carol Holly is a local collector with an extensive collection from the area. However, provenience of specimens is poor.

Bill Hummel  
Prophetstown, Illinois

Bill Hummel is a local historian. It was not possible to arrange an appointment with him.

Ronald Jamieson  
Moline, Illinois

Ronald Jamieson is a local collector with an extensive knowledge of local prehistory and history.

Mrs. Dale Kracklow  
Moline, Illinois

Mrs. Dale Kracklow possesses her late husband's notes and maps. Our attempts to locate here were not successful.

Craig Manuaring  
East Moline, Illinois

Craig Manuaring collects artifacts in the lower Rock River Valley. His collection is well documented.

Mark Wagner  
Springfield, Illinois

Mark Wagoner is the HS division archaeologist at the Illinois Department of Conservation. He provided us access to the necessary site files, and was helpful in directing us to previous sources in the Rock River area.

Dr. Roald Tweet  
130 Old Main, Augustana College, Rock Island

Dr. Tweet was very helpful in a general way. Although he did not give us any specific information on the Rock River Valley, he was able to direct us to Dr. Anderson and Dr. Moline, both of Augustana College. Dr. Tweet has done extensive documentary research on the subject of Arsenal Island.

Dr. Richard Anderson

203 New Science Building, Geology Department,  
Augustana College, Rock Island

Dr. Anderson has done extensive geologic research within the Rock River Valley. He was able to direct us to some very interesting geologic reports, some of which had very relevant site specific information for the project area.

Dr. Norman Moline

204 New Science Building, Geography Department,  
Augustana College, Rock Island

Dr. Moline, a geographer at Augustana College, was very interested in the progress of our report. Other than a similar report done by himself on the mouth of the Rock River, he was not able to supply us with anything very helpful.

Dr. Wayne Temple

Illinois State Archives, Springfield, Illinois

Dr. Temple was extremely helpful in allowing us to have access to the holdings at the State Archives, especially the U.S. government Land Survey plats.

Dr. James Springer

Dept. of Anthropology, Northern Illinois University,  
DeKalb, Illinois

Dr. Springer was contacted after we had heard that he had done some archaeological work within the project

area. It was learned that he had done work within the general area. No site specific information was collected for the project area from Dr. Springer.

Mary Kirn

Architectural Historian, Augustana College  
Rock Island, Illinois

Ms. Kirn was recommended to us by Dr. Moline, also of Augustana College, because of her interest in local vernacular architecture. Due to scheduling problems, we were not able to contact her.

Mr. Karl Yost

Morrison, Illinois

Mr. Yost, a local historian, has put together a very impressive and useful library pertaining to local history. He has also started a reprint series dealing with early Americana. He is also a member of the local historical society.

Carol Hunt

Putnam Museum, Davenport, Iowa

Ms. Hunt is the registrar and unofficial research librarian at the Davenport Academy of Science. Due to scheduling problems, we were not able to evaluate the library's resources pertaining to the Rock River Valley.

## APPENDIX III

### SCOPE OF WORK FOR LITERATURE SEARCH AND ANALYSIS FOR CULTURAL RESOURCES IN AREAS 1 THROUGH 5 OF THE ROCK RIVER, ILLINOIS

#### I. PURPOSE

The Rock Island District, Corps of Engineers, intends to award a purchase order for a literature search, review, and analysis of data on known cultural resources along the Rock River in Areas 1 through 5 (see exhibit). These studies are being conducted in order to identify the known cultural resources at an early stage in the planning process and give them adequate consideration. This action is authorized under the National Environmental Policy Act, Executive Order 11593 and 33 CFR 305 (ER 1105-2-460).

#### II. SPECIFIC REQUIREMENTS

1. The contractor shall review the pertinent literature on the area and as a minimum contact the following organizations and people for additional information:

Illinois State Historic Preservation Officer  
Illinois Archaeological Survey  
Quad Cities Archaeological Society  
Local Historical Societies

The prospective contractor is expected to demonstrate a knowledge of the body of literature available for this area and pursue data collecting from individuals who are knowledgeable in the area.

2. The contractor will locate the resources identified through the work in item 1 and indicate their location on a set of USGS topographic maps (7-1/2 or 15 minute quadrangle) as accurately as possible. The maps will be supplied to RID by the Contractor.

3. The contractor will prepare a report on the known archaeological, historic, and architectural resources in the area. The report will identify each resource, its location, time period (if known) literature source, and whether or not any research has been done on it. Where research has been conducted at least a summary of the work will be presented in the report.

4. The contractor shall analyze the data presented and build a chronology for the area as well as generating a preliminary predictive model for resource location for those data which are not readily visible.

5. The format of the report shall include but not be limited to the following:

Title Page  
Abstract  
Table of Contents  
Introduction

Environmental Setting  
Historic Resources  
Prehistoric Resources  
Architectural Resources  
Analysis  
Recommendations for further work  
Conclusions  
Appendices

6. The appendices will include maps of the resources, this Scope of Work, vitae of the Principal Investigation and consultants, and copies of the review comments on the draft.

7. All work will be carried out under the direction of a qualified Principle Investigator who shall also be responsible for the contents of the report. Where portions of the report are written by someone other than the Principal Investigator the author shall be identified. Minimum professional qualifications for the Principal Investigator are listed in 36 CFR 60.

### III. REPORTING SCHEDULE

1. Work shall commence within 30 calendar days after notice of award. Five copies of the draft report shall be submitted to the Contracting Officer 75 calendar days after notice of award. After receipt of the draft report by the Contracting Officer the report will be reviewed for its adequacy by the SHPO, Interagency Archaeological Services and by Rock Island District. Twenty copies of the final report are due 30 calendar days after the contractor receives the review comments from RID. The contractor is not to send any reports out for review; this will be done by the Contracting Officer.

2. No data shall be released by the contractor prior to acceptance of the final report by the Contracting Officer. After the final report is accepted there are no restrictions on its use by either the contractor or the Government with the exception that specific site information will not be made available to the public. In order to reduce the possibility of site vandalism specific site information will only be given to those individuals with a genuine research interest or need to know.

## APPENDIX IV

### CURRICULUM VITAE

NAME: Frederick William Lange

[REDACTED]

[REDACTED]

[REDACTED]

#### BUSINESS ADDRESS:

Midwestern Archeological Research Center  
Illinois State University  
Normal, Illinois 61761

Phone: 309/438-7534; 438-2271 [REDACTED]

#### EDUCATION:

Undergraduate: Beloit College: B.A., cum laude  
(Anthropology) April, 1967

Graduate: University of Wisconsin-Madison, M.A.  
(Anthropology), January 1969. Publications  
accepted in lieu of thesis: "Excavation  
of the State Line Mound Group (Ro-39)", and  
"The Bigelow Site (47-Pt-29): An Ethno-  
historic Analysis of the Historic Artifacts"  
(see bibliography for details).

University of Wisconsin-Madison, PhD.  
(Anthropology), June 1971. "Culture  
History of the Sapoa River Valley, Costa  
Rica." Minor Subject: Geography. Foreign  
Languages: Spanish (reading, writing, and  
speaking ability); German (reading and some  
speaking ability).

#### PROFESSIONAL EXPERIENCE

Summer, 1959: Archaeological Survey and Testing, Bandelier  
National Monument, New Mexico; Charles H.  
Lange, Director.

Summer, 1962: Crew Member, Mormon Temple Excavation, Nauvoo,  
Illinois; Southern Illinois University Museum;  
Dee F. Green, Field Director.

Summer, 1963: Field Assistant, Tohatchi School Salvage  
Project, Museum of New Mexico; Blake L.  
Benham, Field Director.

- Summer, 1964: Field Assistant, Kickapoo Reservoir Project, State Historical Society of Wisconsin; William M. Hurley, Field Director.
- Spring, 1966: Archaeological Field Survey, Costa Rica.
- Summer, 1966: Assistant Field Director, Woodland Cultures Project, Center for Climatic Research, University of Wisconsin-Madison; William M. Hurley, Field Director.
- Summer, 1967: Director, Hutchison Site Mound Excavations, Logan Museum, Beloit College.
- Fall, 1968: Teaching Assistant, Anthropology 100, Department of Anthropology, University of Wisconsin-Madison.
- Spring, 1969: Project Director in Anthropology, Associated Colleges of the Midwest Central American Field Program, Costa Rica.
- Summer, 1969: Reader, Anthropology 100, Department of Anthropology, University of Wisconsin-Madison.
- Spring, 1970: Project Director in Anthropology, Associated Colleges of the Midwest Central American Field Program, Costa Rica.
- Summer, 1971: Research Associate, Department of Anthropology, University of Toronto; and Assistant Project Director, Algonquin Park Archaeological Project; William M. Hurley, Project Director.
- Sept. 1971 to Sept. 1972: Instructor in Anthropology, Beloit College, and Curator of Latin American Archaeology and Ethnology (Logan Museum).
- Jan. 1972 to April 1972: Research Associate (Barbados Ethnohistory Project), Department of Anthropology, Southern Illinois University-Carbondale.
- Sept. 1972 to Aug. 1976: Assistant Professor in Anthropology, Beloit College, and Curator of Latin American Archaeology and Ethnology (Logan Museum).
- Jan. 1973 to May, 1973: Faculty Member in Anthropology, Associated Colleges of the Midwest Central American Field Program, Costa Rica.
- May, 1973 to Aug. 1973: Director, Logan Museum of Anthropology (Beloit College) Archeological Field School, Costa Rica.
- Fall, 1973: Environmental Impact Consultant, Wisconsin Electric Power Company, Lake Koshkonong Nuclear Power Plant Project.

## Lange-3

Jan. 1974 to  
June 1974: Visiting Professor in Anthropology, University of Toronto.

May 1974 to  
Aug. 1974: Director, Logan Museum of Anthropology (Beloit College) Archeological Field School, Turtle Creek, Wisconsin.

Oct. 1973 to  
Jan. 1975: Member, Program Advisory Committee, Costa Rican Studies Program, Associated Colleges of the Midwest.

Jan. 1975 to  
Jan 1976: Chairman, Program Advisory Committee, Costa Rican Studies Program, Associated Colleges of the Midwest.

Jan. 1976 to  
May 1976: Director, Logan Museum of Anthropology (Beloit College) Archaeological Field School, Costa Rica.

1 Jan. 1976 to  
1 June 1979: Faculty Member in Anthropology, Associated Colleges of the Midwest, Central American Field Program, Costa Rica.

1 June 1976 to  
1 June 1979: Field Archaeologist and Associate Curator of Archaeology, National Museum of Costa Rica. Co-Editor of Vinculos, Revista de Antropologia del Museo Nacional de Costa Rica. Member, Managing Board of National Center for Anthropological Investigation.

1 Aug. 1979 to  
1 July 1981: Director, Historic Sites Division, and Associate Professor, Department of Sociology, Anthropology and Social Work, Illinois State University.

1 March 1981 to  
present: Member, Editorial Board. Middle American Research Institute, Tulane University.

1 July 1981 to  
present: Director, Historic Sites Division, Midwestern Archeological Research Center, Illinois State University; and Adjunct Associate Professor of Anthropology, Department of Sociology, Anthropology, Social Work, Illinois State University.

Nov. 1981 to  
present: Consultant to Lakeview Museum of Arts & Sciences, Peoria, Illinois, for Pre-Columbian Art Exhibition.

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- (Editor) An Archaeological Survey of the Sapoa River Valley:  
1969b Report on A Preliminary Season of Archaeological Research in Northwestern Guanacaste Province, the Republic of Costa Rica. Chicago: Associated Colleges of the Midwest, 429 pp., mimeo.
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- (Editor) Archaeological Research in the Rio Sapoa Valley Area:  
1970b Report on A Second Season of Archaeological Research in Northwestern Guanacaste Province, the Republic of Costa Rica. Chicago: The Associated Colleges of the Midwest, 138 pp., mimeo.
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- "Settlement and Subsistence Models for Algonquin Provincial 1972b Park," in Algonquin Park Archaeology 1971 (W. M. Hurley I. T. Kenyon, F. W. Lange, and B. M. Mitchell, eds.). Department of Anthropology, University of Toronto Anthropological Series 10: 147-184.
- (with W.M. Hurley, I.T. Kenyon, and B.M. Mitchell, Eds.) 1972c Algonquin Park Archaeology 1971. University of Toronto, Department of Anthropology, Anthropological Series No. 10.

Lange-5

(with Thomas A. Murray) "The Archaeology of the San Dimas Valley, 1972d Costa Rica," Katunob 7:50-91. Also University of Northern Colorado, Museum of Anthropology Misc. Series No. 30.

(with Charles R. Rydberg) "Abandonment and Post-Abandonment Behavior 1972e at a Costa Rican House-Site," American Antiquity 37:419-432.

"Historia cultural en el valle del Rio Sapoá, Costa Rica," Informe 1972f Semestral, Instituto Geografico de Costa Rica, pp. 61-76.

"Lowland Maya Subsistence and Marine Resources: A Reply," American 1973 Anthropologist 75:908-910.

(with Frederick M. Carty) "Adaptation of the Flotation Technique to 1975a Salt Water," Journal of Field Archaeology 2:119-123.

"Excavaciones de salvamento en un cementerio del periodo bicroma en 1975b zonas, Guanacaste, Costa Rica," Vinculos 1(2):92-98.

"Costa Rica and Subsistence Archaeology." Current Anthropology 1976a 17:305-307.

"Bahías y Valles de la Costa de Guanacaste," Vinculos 1976b 2(1):45-66.

"Slave Mortuary Practices, Barbados, West Indies," Actas, XLI Congreso 1976c Internacional de Americanistas 2:477-483.

"The Northern Central American Buffer: A Current Perspective," 1976d Latin American Research Review 11:177-183.

(with David J. Bernstein, Marti Siegel, and Donald Tase) "Preliminary 1976e Archaeological Research in the Nosara Valley, Costa Rica," Folk 18:47-60.

"Estudios Científicos y el Patrimonio Cultural en América Central, 1976f Una Vista Extranjera," in Primer Congreso de Antropología y Defensa del Patrimonio Cultural de América Central. Centro de Estudios Centro-Americanos, Instituto de Estudios Sociales, Universidad de Costa Rica, San José; pp. 89-94.

"Sitio Vidor: Una Clave para Ingresar al Pasado," Troquel, 1977a Revista Cultural del Banco Central de Costa Rica 11:21-24.

"Vestigios de un Comercio Ancestral," Troquel, Revista Cultural 1977b del Banco Central de Costa Rica 13:22-23.

"Estudios Arqueológicos en el Valle de Nosara, Guanacaste, Costa 1977c Rica," Vinculos 3(1):27-36.

- (with Jerome S. Handler) Plantation Slavery in Barbados: An Archaeological and Historical Investigation. Harvard University Press.
- 1978a
- "Coastal Settlement in Northwestern Costa Rica," in Prehistoric Coastal Adaptations (B. Stark and B. Voorhies, eds.) Academic Press, pp. 101-116.
- 1978b
- "Theoretical and Descriptive Aspects of Frontier Studies," Latin American Research Review 14:221-227.
- 1979a
- (with Jerome S. Handler) "Plantation Slavery on Barbados, West Indies" Archaeology 32:45-52.
- 1979b
- (with Richard M. Accola) "Pre-Columbian Metallurgy in Northwestern Costa Rica," Archaeology 33:26-33.
- 1979c
- (with Jerome S. Handler and Charles E. Orser, Jr.) "Two Necklaces and Carnelian Beads from a Slave Cemetery in Barbados, West Indies," Ornament 4:15-18.
- 1979d
- Los Recursos Arqueologicos de Costa Rica y Su Preservacion.
- 1980a
- Departamento de Antropologia; Direccion General Cultura, Ministerio de Cultura, Juventud, y Deportes; Museo Nacional de Costa Rica (San Jose).
- 1980b
- "La Presencia de Metales Pre-Colombinos en Guanacaste," in Memoria del Congreso Sobre el Mundo Centroamericano de Su Tiempo (V<sup>o</sup> Centenario de Gonzalo Fernandez de Oviedo). San Jose, Costa Rica: Editorial Texto Ltda.), pp. 149-156.
- 1980b
- "The Impact of Tourism on Cultural Patrimony: A Costa Rican Example," in Tourism and Development (Valene L. Smith, ed.), special issue of Annals of Tourism Research 7(1): 56-68.
- 1980c
- (with Jerome S. Handler) "The Archaeology of Mapps Cave: A Contribution to the Prehistory of Barbados," Journal of the Virgin Islands Archaeological Society, 9:3-17.
- 1980d
- (co-edited with Suzanne Abel-Vidor) Investigaciones Arqueologicas en la Zona de Bahia Culebra, Costa Rica (1973-1979). Vinculos, Volume 6. National Museum of Costa Rica.
- 1980e
- (with Richard M. Accola and Petter R. Ryder) "La Administracion de los recursos culturales en Bahia Culebra," in Investigaciones Arqueologicas en la Zona de Bahia Culebra, Costa Rica (1973-1979), F.W. Lange and S. Abel-Vidor, editors. Vinculos 6 (1):9-32.
- 1980f

- 1980g "The Formative Zoned Bichrome Period in northwestern Costa Rica (800 B.C. to A.D. 500)," in Investigaciones Arqueologicas en la Zona de Bahia Culebra, Costa Rica (1973-1979), F.W. Lange and S. Abel-Vidor, editors. Vinculos 6(2):33-42.
- 1980h "Una ocupacion del Policromo Tardio en sitio Ruiz, cerca de Bahia Culebra," in Investigaciones Arqueologicas en la Zona de Bahia Culebra, Costa Rica (1973-1979), F.W. Lange and S. Abel-Vidor, editors. Vinculos 6(2):81-96.
- (with Charles R. Smith) "A State-Wide Plan for the Study of Historic Sites: A Basis for Determination of Individual Site Significance," in A Guide for Historical Archaeology in Illinois (Charles E. Orser, Jr., ed.), pp. 128-138. Mid-American Research Center, Loyola.
- (with Ronald L. Bishop and Lambertus van Zelst) "Perspectives on Costa Rican Jade: Compositional Analyses and Cultural Implications," in Between Continents/Between Seas: Precolumbian Art of Costa Rica. (E. Benson, ed.), pp. 167-175. H. N. Abrams, New York.

## IN PRESS:

(with Jerome S. Handler) "An African Pipe from a Slave Cemetery in Barbados, West Indies, in The Archaeology of the Clay Tobacco Pipe, vol. III: South America and the West Indies (P. Davey, ed.), British Archaeological Reports.

Review of Archaeology of the Rivas Region, Nicaragua, by Paul F. Healy (American Antiquity).

Review of Archeologic du Sud de la Peninsula d'Azuero, Panama by Alain Ichon (American Antiquity).

## REVIEWS OF:

Brunhouse, Robert L. Sylvanus G. Morley and the World of the Ancient Mayas in Library Journal, 1 February.

Katz, Freidrich. The Ancient American Civilizations in Library Journal, July.

Rouse, Irving. Introduction to Prehistory: A Systematic Approach, 1972 in American Anthropologist 75:1098-1099.

Linares, Olga and Anthony Ranere. Adaptive Radiations in Prehistoric Panama in Science 211:1412-1413.

CONTRACT AWARDS: In two years, as director of the Historic Sites Division at Illinois State University I have written successful proposals for, been Principal Investigator of, or had day-to-day administrative responsibility for contracts totaling more than \$400,000. The projects have been conducted for federal and state agencies, local municipalities, and private energy companies.

MAJOR CONTRACT REPORTS (Co-Author or Principal Investigator Status):

1980 (with Charles Smith) The East St. Louis Railroad Relocation District: An Inventory of Historic Cultural Resources, for Illinois Department of Transportation.

(with Carl Ekberg, William Walters, and Charles Smith) A Cultural Historical Study of the Pine Ford Lake Project Area, Washington, Jefferson, Franklin, and St. Francois Counties, Missouri, for Interagency Archeological Services-Atlanta.

(Co-Principal Investigator) Cultural Resource Inventory and Evaluation of Rock Island Arsenal, Rock Island, Illinois, for Interagency Archeological Services-Denver.

(Principal Investigator) Phase I Archeological Reconnaissance and Historical Investigation of the F.A.P. 406 Highway Corridor, Tazewell and Logan Counties, Illinois, for Illinois Department of Transportation.

(Principal Investigator) Report of the Historic Sites Survey and Inventory, Littleton Field and Haul Road, Schuyler, McDonough, and Fulton Counties, Illinois, for AMAX Coal Co., Inc.

PAPERS GIVEN AT PROFESSIONAL MEETINGS:

1970: "Culture History of the Sapoa River Valley, Costa Rica," 35th Annual Meeting, Society for American Archaeology, Mexico City.

1971: "Ceramic and Subsistence Patterns of the Late Polychrome Period, Costa Rica," 36th Annual Meeting, Society for American Archaeology, Norman.

1972: (with William M. Hurley and I.T. Kenyon) "Algonquin Park Archaeology-1971," Fifth Annual Meeting of the Canadian Archaeological Association, St. John's, Newfoundland.

"An Archaeological Investigation of the Domestic Life of Plantation Slaves in Barbados, West Indies," 37th Annual Meeting, Society for American Archaeology, Miami Beach.

## Lange-9

- 1974: "Slave Mortuary Practices, Barbados, West Indies," 41st International Congress of Americanists, Mexico City.
- "Coastal Research in Northwestern Pacific Costa Rica," 73rd Annual Meeting, American Anthropological Association, Mexico City.
- Organized and chaired Symposium Population Shifts in Culture Change held at Logan Museum, Beloit College.
- 1975: "Preliminary Research in the Nosara Valley, Costa Rica," 40th Annual Meeting, Society for American Archaeology, Dallas, Texas.
- "Estudios Científicos y El Patrimonio Cultural En Costa Rica y en America Central, Una Vista Extranjera," Primer Congreso de Antropología y de la Defensa del Patrimonio Cultural, San Jose, Costa Rica.
- "Bahias y Valles de la Costa Pacifica de Costa Rica," for Symposium on Secuencias Ceramicas en la America Central, Primer Congreso de Antropología y de la Defensa del Patrimonio Cultural, San Jose, Costa Rica.
- "Beaches, Bays, and Valleys in Northwestern Costa Rica," for Symposium on The Southern Frontiers of Mesoamerica, 74th Annual Meeting of the American Anthropological Association, San Francisco.
- 1976: "Prehistoric Adaptations, Coastal Guanacaste, Costa Rica," for Symposium on Middle American Coastal Ecosystems, 41st Annual Meeting, Society for American Archaeology, St. Louis.
- 1977: (with Jerome S. Handler) "Mortuary Patterns of Plantation Slaves in Barbados," Ninth Conference of the Association of Caribbean Historians, Cave Hill, Barbados.
- Co-chaired Symposium "Present Archaeological Research in Lower Central America," and presented paper entitled "Excavations at the Vidor Site, Guanacaste, Costa Rica," 42nd Annual Meeting, Society for American Archaeology, New Orleans.
- (With Ricardo Vasquez L.) "El Futuro de los estudios interdisciplinarios entre geología y arqueología en Costa Rica," First National Congress of Geology, San Jose.
- 1978: "Tourism's Impact on Cultural Patrimony: A Costa Rican Example," Annual Meeting of the Society for Applied Anthropology, Merida.

"The Ruiz Site: A Late Polychrome Occupation Near the Bay of Culebra, Costa Rica," in Symposium The Paleoecology of Lower Central America, 43rd Annual Meeting, Society for American Archaeology, Tuscon.

Co-chaired archaeological symposium and presented paper entitled "La Presencia de Metales Precolombinos en Guanacaste," Congreso V Centenario Nacimiento Gonzalo Fernandaz de Oviedo, Nicoya, Costa Rica.

"Pre-Columbian Inter-Coastal Systems, Northern Costa Rica," 77th Annual Meeting, American Anthropological Association, Los Angeles.

- 1979: "Damned Tourists in Costa Rica: Cultural Resource Management in a Developing Nation," 44th Annual Meeting, Society for American Archaeology, Vancouver.

Co-chaired Symposium: "Current Research in Costa Rican Archaeology," 44th Annual Meeting, Society for American Archaeology, Vancouver.

"Illinois State University's Historic Sites Research Program-An Overview." Midwestern Archaeological Conference, Milwaukee.

"Shells, Spoons, Maces, and Stools: A Look at Social Organization in pre-Columbian Costa Rica," 78th Annual Meeting, American Anthropological Association, Cincinnati.

- 1980: (with Jerome S. Handler) "Application of the South Ceramic Formula on Barbados, West Indies," 13th Annual Meeting, Society for Historical Archaeology, Albuquerque.

(with Jerome S. Handler) "The Newton (Barbados) Slave Cemetery: Patterns, People, When and Where the Twain do Meet," for Symposium Every Man's Proper House and Home: Archaeological Perspectives on the Mentalite of Earlier Generations, 13th Annual Meeting, Society for Historical Archaeology, Albuquerque.

Co-organizer, Advanced Seminar on Lower Central American Archaeology; School of American Research, Santa Fe.

Organizer and Chair, Symposium on Historic Sites Research in Illinois, Midwestern Archaeological Conference, Chicago.

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Organizer and Chair, Symposium on Recent Developments in Mesoamerican and Central American Jade Research, Dumbarton Oaks; Washington, D.C.; paper also presented as part of symposium.

Co-organizer and Chair, Symposium on Archaeology and Art History: Interdisciplinary Approaches for the 1980's, 79th Annual Meeting, American Anthropological Association; Washington, D.C.; paper also presented as part of symposium.

- 1981: Organizer and Chair, Symposium on Historical Archaeology, 1981 Midwestern Archaeological Conference, Madison; paper also presented as part of symposium.

Discussant for symposium "New Models for The Political Economy of Pre-Columbian Polities: I", 80th Annual Meeting, American Anthropological Association, Los Angeles.

(with Michael B. Whiteford) "So You Want to be An Anthropologist: An Assessment of Undergraduate Field Schools as Teaching Devices and Education Tools," in session Teaching Anthropology: Innovative Approaches in The Classroom and Field, 80th Annual Meeting, American Anthropological Association, Los Angeles.

- 1982 (Organizer) Session on Current Research on Historical Problems in the 19th Century Midwest. Also presented paper (co-authored with Henry B. Moy and Titus M. Karlowicz) "Rock Island Arsenal: A Military-Industrial Complex on the Mississippi" as part of the session. Annual meeting, Society for Historical Archaeology, Philadelphia.

#### CLASSES TAUGHT:

As part of the Associated Colleges of the Midwest Costa Rican Studies and Central American Field Programs:

Mesoamerican Archaeology  
 Archaeological Field Methods  
 Archaeological Laboratory Methods  
 Field Seminar in Archaeology  
 Geography and Ecology of Costa Rica  
 Contemporary Costa Rican Society

## At Beloit College:

Origins of Western Civilization	(Anthropology 105)
Physical Anthropology	(Anthropology 110)
Technique and Theory in Archaeology	(Anthropology 230)
Archaeology of South America	(Anthropology 240)
Archaeology of Mesoamerica	(Anthropology 245)
Anthropological Fieldwork I	(Anthropology 280)
Anthropological Fieldwork II	(Anthropology 285)
Field Seminar in Anthropology	(Anthropology 290)
Culture and Man's Survival	(Porter Scholars 100)
The Nature of Cultural Diffusion	(Porter Scholars 100)

## At The University of Toronto:

Archaeology of North America	(ANT 225E)
Archaeology of Eastern North America	(ANT 415a)
Archaeology of Middle America	(ANT 1033x)

## At the University of Costa Rica:

Introduction to Laboratory Techniques

## At Illinois State University:

Introduction to Archaeology	(Anthropology 183)
Regional and Areal Studies (Archeology Field School)	(Anthropology 306)

## GRANTS AND AWARDS:

Summer, 1968: Ford Foundation stipend for intensive Spanish language program, Ibero-American Studies Program, University of Wisconsin-Madison.

Spring, 1969: Organization for Tropical Studies, Inc. Grant 68-22 for "An Archaeological Survey of the Rio Sapoa Valley, Guanacaste Province, Costa Rica."

Fall, 1969: University of Wisconsin Graduate School Travel Grant to study Central American collections in museums in New York City and at the Peabody Museum, Harvard University.

Ford Foundation, Graduate Fellowship.

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- Spring, 1970: Organization for Tropical Studies, Inc. Grant 69-39 for "Archaeological Excavations in the Sapoa River Valley, Guanacaste, Costa Rica."
- Academic Year  
1970-1971: Ford Foundation Dissertation Year Fellowship.
- Spring, 1972: (co-investigator with Jerome S. Handler)  
National Science Foundation Grant GS-30993.  
"Acculturative Processes in New World African Cultures."
- Winter, 1977: National Geographic Society grant in support of archaeological excavations, Bay of Culebra, Pacific coast of Costa Rica.
- Fall, 1977: Special award from government funds by the President of Costa Rica for a study of pre-Columbian relationships between the Atlantic and Pacific coasts of Costa Rica.

## MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:

American Anthropological Association  
Society for American Archaeology  
Society for Historical Archaeology  
Illinois Archaeological Survey  
Wisconsin Archaeological Survey  
North Central Council of Latin Americanists



REPLY TO  
ATTENTION OF:

NCRED-PB

29 JUN 1961

Dr. Frederick W. Lange  
Department of Sociology, Anthropology,  
and Social Work  
Illinois State University  
Normal, Illinois 61761

Dear Dr. Lange:

We have completed our review of the draft report Literature Search and Analysis for Cultural Resources in Areas 1 through 5 of the Rock River, Illinois. Most of our comments on the report were covered by Mr. Eichhorn in his meeting with you at the University. The one point we wish to reiterate is that consultation with other professionals who have worked in the area should be undertaken prior to submission of the final report. Discussion with staff at the University of Wisconsin-Milwaukee would be particularly useful in this regard.

On the whole, we are quite pleased with the draft and look forward to the final. A copy of the State Historic Preservation Officer's comments are included for your information.

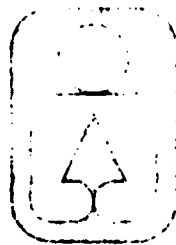
If you have any questions, please call Roy Eichhorn at 309/788-6361, Ext. 6349.

Sincerely,

1 Incl  
As stated

F. E. FLICKINGER  
Contracting Officer

Illinois



Department of Conservation

life and land together

605 WML G STRATTON BUILDING • 400 SOUTH SPRING STREET • SPRINGFIELD #2700

CHICAGO OFFICE - ROOM 100 160 NO. LA SALLE 06601

David Kenney, Director • James C. Heston, Assistant Director

March 23, 1981

Mr. Doyle W. McCully  
Department of the Army  
Rock Island District Corps  
Clock Tower Building  
Rock Island, IL 61201

Dear Mr. McCully:

The Department of Conservation Staff Archaeologist has reviewed the draft report "Literature Search and Analysis for Cultural Resources in Areas 1 through 5 of the Rock River, Illinois."

The report appears to have adequately completed the study as requested by the scope of work. A large number of prehistoric and historic resources are indicated in the region by this work. The completion of the data base and verification of sites located in this phase from records, as recommended, would be needed for final assessment of project impact.

Sincerely,

David Kenney  
State Historic Preservation  
Officer

DK/MKB/lra